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ENUMERATIO

PLANTARUM GUATEMALENSIUM

IMPRIMIS A

H. De TUERCKHEIM COLLECTARUM

QUAS EDIDIT

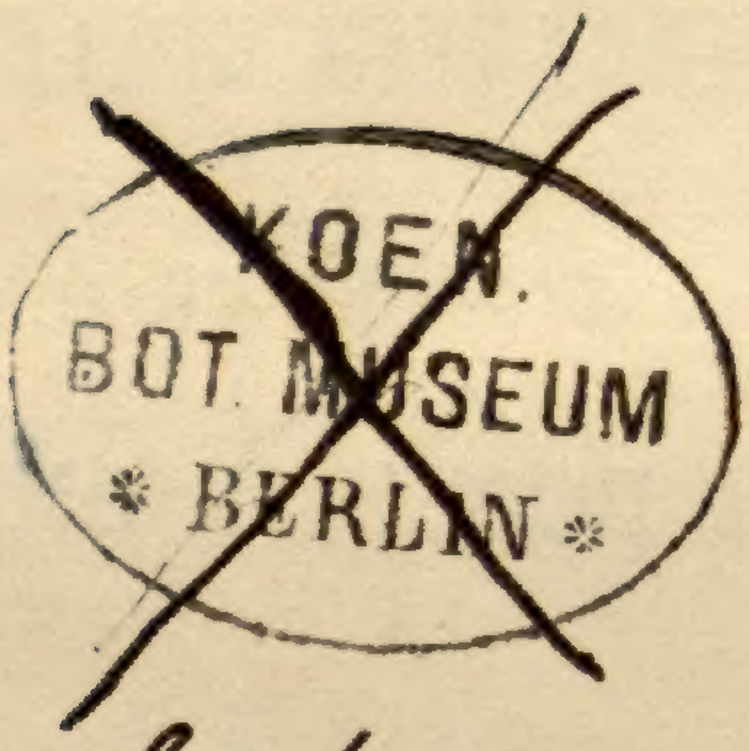
JOHN DONNELL SMITH.

Novarum additis descriptionibus et tabulis.

PARS I.

MISSOURI
BOTANICAL
GARDEN.

OQUAWKÆ:
APUD H. N. PATTERSON
Typographum Botanicum.
MDCCCLXXXIX.



Deleatur

Gärtke

Harum quæ sequuntur plantarum exempla serie plus minus integra in prima herbaria Americana et Europæa jam distributa sunt. Quæ autem adhuc desiderantur, quæque subinde e Guatemala afferentur, operam dabo ut propediem transmittam. EDITOR.

Baltimorii, m. Julio, 1889.

1313. Thalictrum peltatum, DC.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

461. Ranunculus Hookeri, Schlecht.
Tactic, Depart. Alta Verapaz, alt. 4,800 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

1235. Guatteria grandiflora, J. Donnell Smith
in Coult. Botan. Gaz. xiv. 25.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

1137. Cissampelos Pareira, L.,
forma (*C. acuminata, Benth.*)
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

1236. Bocconia frutescens, L.?
Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

496. Nasturtium Mexicanum, Moc. et Sesse.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

819. Capsella Bursa-Pastoris, Mœnch.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Sept. 1885. Leg. H. von Tuerckheim.

671. Lepidium Menziesii, DC.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Sept. 1885. Leg. H. von Tuerckheim.

59. Ionidium parietariæfolium, DC.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

693. Sauvagesia erecta, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

298. Polygala Americana, Mill.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Nov. 1886. Leg. H. von Tuerckheim.

136. Polygala asperuloides, H. B. K.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

390. Polygala floribunda, Benth.
Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

3. Polygala paniculata, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

1202. Polygala scoparia, H. B. K.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

62. Monnina evonymoides, Schlecht.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Mart. 1887. Leg. H. von Tuerckheim.

943. Vochysia Guatemalensis, J. Donnell Smith
in Coult. Botan. Gaz. xii. 131.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

1334. Cerastium viscosum, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1883. Leg. H. von Tuerckheim.

142. Stellaria prostrata, Baldw.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Sept. 1885. Leg. H. von Tuerckheim.

683. Arenaria alsinoides, Willd.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

1205. Arenaria alsinoides, Willd., var. angustifolia, Watson.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

684. Drymaria cordata, Willd., var. pilosa, Schl.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

374. Drymaria Palmeri, Hemsl.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

1023. Portulaca oleracea, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

88. Ascyrum hypericoides, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

1314. Hypericum gnidioides, Seem.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

570. Hypericum gymnanthum, Engelm. et Gray.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

20. Hypericum uliginosum, H. B. K.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

989. Chrysochlamys Guatemaltecana, J. Donnell Smith in Coult. Botan. Gaz. xiii. 26.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

30. Saurauja macrophylla, Linden.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Dec. 1887. Leg. H. von Tuerckheim.

990. Saurauja Veraguensis, Seem.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

330. Anoda acerifolia, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

985. Sida rhombifolia, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

899. Sida spinosa, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

341. Abutilon elatum, Griseb.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

882. Malvaviscus arboreus, Cav.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

1358. Helicteres guazumæfolia, H. B. K.

Chiacám, Depart. Alta Verapaz, alt. 2,500 pp.
M. Dec. 1887. Leg. H. von Tuerckheim.

342. Triumfetta longicuspis, Turcz.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

1359. Triumfetta semitriloba, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1888. Leg. H. von Tuerckheim.

682. Linum Schiedeanum, Cham. et Schl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

1206. Linum Schiedeanum, Cham. et Schl., var. Coulterianum, Planch.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

1033. Bunchosia nitida, A. Rich.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Sept. 1886. Leg. H. von Tuerckheim.

708. Stigmaphyllon puberum, A. Juss.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

1107. Gaudichaudia Schiedeana, Schlecht.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1887. Leg. H. von Tuerckheim.

884. Geranium Mexicanum, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

1087. Tropæolum Moritzianum, Klotzsch.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Nov. 1886. Leg. H. von Tuerckheim.

302. Oxalis corniculata, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

11. Oxalis divergens, Benth.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

1152. Trichilia?

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

710. Rhamnus capreæfolia, Schlecht.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

205. Cissus sicyoides, L., forma oxyodon, Planch. in DC. Mon. Phan. v. 523.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1153. Serjania

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

19. Negundo aceroides, Mœnch, var. Texanum, Pax.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

MM. Febr. et Maj. 1886. Leg. H. von Tuerckheim.

340. Rhus terebinthifolia, Schlecht.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

239. Crotalaria ovalis, Pursh.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

1086. Indigofera mucronata, Spreng.

Retaluleu, Depart. Retaluleu, alt. 760 pp.

M. Oct. 1886. Leg. H. von Tuerckheim.

1210. Harpalyce rupicola, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 26.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1322. Diphysa floribunda, Peyr.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

376. Æschynomene Americana, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Dec. 1886. Leg. H. von Tuerckheim.

84. Stylosanthes Guianensis, Aubl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

1100. Zornia diphylla, Pers.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Dec. 1886. Leg. H. von Tuerckheim

692. Desmodium adscendens, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1881. Leg. H. von Tuerckheim.

1320. Desmodium orbiculare, Schlecht.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

119. Desmodium

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

984. Desmodium

Coban, Depart. Alta Verapaz, alt 4,300 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

326. Cologania pulchella, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1885. Leg. H. von Tuerckheim.

237. Canavalia pilosa,

(*Wenderothia pilosa, Mart. et Gal.*)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

235. Phaseolus speciosus, H. B. K.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

327. Vigna luteola, Benth.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

987. Rhynchosia discolor, Mart. et Gal.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

1209. Rhynchosia longeracemosa, Mart. et Gal.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

1370. Rhynchosia longeracemosa, Mart. et Gal.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1888. Leg. H. von Tuerckheim.

1127. Rhynchosia phaseoloides, DC,
forma (*R. erythrinoides, Cham. et Schlecht.*)
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

1227. Rhynchosia phaseoloides, DC,
forma (*R. erythrinoides, Cham. et Schlecht.*)
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

1091. Cassia leptocarpa, Benth,
var. hirsuta, Benth.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Dec. 1886. Leg. H. von Tuerckheim.

125. Cassia lævigata, Willd.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1885. Leg. H. von Tuerckheim.

61. Cassia stenocarpa, Vog.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

681. Bauhinia Pansamalana, J. Donnell Smith
in Coult. Botan. Gaz. xiii. 27.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

896. Bauhinia Rubeleruziana, J. Donnell Smith
in Coult. Botan. Gaz. xii. 27.
Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.
M. Apr. 1886. Leg. H. von Tuerckheim.

300. Mimosa floribunda, Willd.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Nov. 1886. Leg. H. von Tuerckheim.

211. Mimosa invisa, Mart.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1327. Mimosa sesquijugata, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 74.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

689. Acacia filicina, Willd.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1211. Acacia pennatula, Benth.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

690. Anneslia Calothyrsus,

(*Calliandra Calothyrsus, Miq.*)

Coban, Depart. Alta Verapaz, alt. 4,000 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1325. Anneslia grandiflora, Salisb.

(*Calliandra grandiflora, Benth.*)

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1324. Anneslia Quetzal, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 28.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

691. Anneslia tetragona,

(*Culliandra tetragona, Benth.*)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

1214. Inga edulis, Mart.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1148. Rubus adenotrichus, Cham. et Schl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

1147. Rubus floribundus, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

1149. Rubus Schiedeanus, Steud.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

1150. Rubus urticæfolius, Poir.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1887. Leg. H. von Tuerckheim.

1208[B]. Alchemilla sibbaldiæfolia, H. B. K.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

1208. Alchemilla tripartita, Ruiz et Pav.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

507. Alchemilla venusta, Cham. et Schl.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

906. Weinmannia elliptica, H. B. K.

Samac, Depart. Alta Verapaz, alt. 4,500 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

503. Proserpinaca palustris, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

32. Psidium Araça, Raddi.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

465. Myrcia cucullata, Berg.?

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

542. Eugenia Jambos, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1881. Leg. H. von Tuerckheim.

883. Centradenia grandifolia, Endl.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Mart. 1886. Leg. H. von Tuerckheim.

9. Heeria macrostachya, Triana.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Dec. 1886. Leg. H. von Tuerckheim.

540. Heeria rosea, Triana.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

316. Arthrostemma fragile, Lindl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

306. Monochætum Deppeanum, Cham. et Schl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

726. Triolena paleolata, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 28.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

372. Oxymeris muptiplinervis, Triana.

Coban, Depart. Alta Verapaz, alt. 4,600 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

1233. Conostegia lasiopoda, Benth.?

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

1234. Conostegia subhirsuta, DC.

Pansamalá, Depart. Alta Verapaz, alt. 3,000 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

228. Conostegia Xalapensis, Don.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Oct. 1885. Leg. H. von Tuerckheim.

1232. Conostegia

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

255. Miconia Fothergilla, Naud.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

905. Miconia

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

1317. Miconia

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

924. Miconia [illegible]

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

581. Miconia [illegible]

Coban, Depart. Alta Verapaz, alt. 4,800 pp.

M. Mart. 1881. Leg. H. von Tuerckheim.

709. Clidemia cymifera, J. Donnell Smith

in Coult. Botan. Gaz. xiv. 25.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

707. Clidemia laxiflora, Schlecht.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

991. Calophysa setosa, Triana.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

778. Blakea Guatemalensis, J. Donnell Smith

in Coult. Botan. Gaz. xiv. 25.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1135. Topobea calycularis, Naud.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

172. Cuphea appendiculata, Benth.,
var. axilliflora, Kœhne.

Cobán, Depart. Alta Verapaz.

Leg. H. von Tuerckheim.

126. Cuphea Balsamona, Cham. et Schl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1885. Leg. H. von Tuerckheim.

17. Cuphea hyssopifolia, Kth.,
form. subrevoluta, Kœhne.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

909. Lythrum Vulneraria, Ait.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

85. Jussiæa Peruviana, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

784. Ludwigia palustris, Ell.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

181. Œnothera rosea, Ait.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

1315. Fuchsia minimiflora, Hemsl.

determ. Hemsley.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

2. Fuchsia parviflora, Zucc.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

766. Lopezia albiflora, Schlecht.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Sept. 1885. Leg. H. von Tuerckheim.

1200. Turnera diffusa, Willd, var. aphrodisiaca, Urb.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

986. Passiflora Choconiana, Watson.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

875. Passiflora fuscinata. Mast.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Mart. 1886. Leg. H. von Tuerckheim.

687. Passiflora maliformis, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

1207. Passiflora trinifolia, Mast.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

1099. Echinocystis Coulteri, Cogn.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Dec. 1886. Leg. H. von Tuerckheim.

1130. Cyclanthera Langæi, Cogn.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

817. Melothria pendula, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1366. Hanburia parviflora, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 299.

Pansamalá, Depart. Alta Verapaz.

Leg. H. von Tuerckheim.

1159. Begonia lobulata, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

203. Begonia Tovarensis, Klotzch.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

885. Begonia

Sesisp, Depart. Alta Verapaz, alt. 3,500 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

840. Begonia

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

1312. Begonia

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

426[B]. Hydrocotyle Asiatica, L., form. luxurians,

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

426. Hydrocotyle Asiatica, L., var. Floridana, Coult. et Rose.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

685. Hydrocotyle Mexicana, Cham. et Schl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

244. Spananthe paniculata, Jacq.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

1032. Sanicula Mexicana, DC.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

21. Apium leptophyllum, F. Muell.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

818. Daucus montanus, Willd.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

977. Viburnum ferrugineum,

(*Oreinotinus ferrugineus*, Œrst.)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

41. Viburnum glabratum, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

720. Cinchona Calisaya, Wedd., var. Ledgeriana, How.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Nov. 1887. Leg. H. von Tuerckheim.

936. Manettia barbata, Œrst. ?

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1368. Manettia cuspidata, Bertol.

Chajrax, Depart. Alta Verapaz, alt. 2,000 pp.

M. Febr. 1888. Leg. H. von Tuerckheim.

897. Rondeletia gracilis, Hemsl.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

1372. Rondeletia Rœzlii, Hemsl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1887. Leg. H. von Tuerckheim.

895. Rondeletia stenosiphon, Hemsl.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

582. Rondeletia

Coban, Depart. Alta Verapaz, alt. 4,800 pp.

M. Mart. 1881. Leg. H. von Tuerckheim.

1249. Gonzalea thyrsoidea, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 188.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

723. Coccocypselum canescens, Willd.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

724. Coccocypselum Tontanea, H. B. K.,

form. (*C. cordifolium, Nees et Mart.*)

Coban, Depart. Alta Verapaz, alt 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

454. Hamelia calycosa, J. Donnell Smith

in Coult. Botan. Gaz. xii. 132.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

750. Hamelia patens, Jacq.

Sesisp, Depart. Alta Verapaz, alt. 3,500 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

901. Hoffmannia Ghiesbreghtii, Hemsl.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

748. Hoffmannia lenticellata, Hemsl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1885. Leg. H. von Tuerckheim.

1252. Posoqueria latifolia, Rœm. et Schult.

Pansamatá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

587. Psychotria uliginosa, Swz.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

922. Palicourea lasiorrhachis, Œrst.?

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

50. Palicourea Mexicana, Benth.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1885. Leg. H. von Tuerckheim.

1284. Cephælis tomentosa, Willd.

Chajrax, Depart. Alta Verapaz, alt. 2,000 pp.

M. Dec. 1887. Leg. H. von Tuerckheim.

1361. Triodon angulatum, Benth.

Chajrax, Depart. Alta Verapaz, alt. 2,000 pp.

M. Dec. 1887. Leg. H. von Tuerckheim.

1185. Diodia rigida, Cham. et Schl.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

80. Crusea calocephala, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

65. Borreria lævis, Gris.?

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

722. Spermacoce tenuior, Gærtn.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

894. Mitracarpum villosum, Cham. et Schl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

413. Richardsonia scabra, St. Hil.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

721. Relbunium hypocarpium, Hemsl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1222. Galium uncinulatum, DC., var. obstipum, Watson,

form. (*G. obstipum, Schlecht., var. latifolium, Schlecht.*)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

250. Valeriana Mikaniæ, Lindl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

352. Valeriana sorbifolia, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

1215. Vernonia Deppeana, Less.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1349. Vernonia Pœppigiana, DC.

Coban, Depart. Alta Verapaz. alt. 4,300 pp.

M. Jan. 1888. Leg. H. von Tuerckheim.

1346. Vernonia Schiedeana, Less.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1888. Leg. H. von Tuerckheim.

1347. Elephantopus scaber, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1888. Leg. H. von Tuerckheim.

488. Ageratum conyzoides, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

1307. Stevia elatior, H. B. K.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

928. Eupatorium aromatisans, DC.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

407. Eupatorium ciliatum, Less.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

865. Eupatorium collinum, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

1352. Eupatorium leucocephalum, Benth.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Apr. 1888. Leg. H. von Tuerckheim.

1343. Eupatorium malvæfolium, DC.

Alt. 4,300 pp.

M. Mart. 1888. Leg. H. von Tuerckheim.

381. Eupatorium pycnocephalum, Less.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

343. Eupatorium semialatum, Benth.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

1348. Eupatorium tubiflorum, Benth.

Coban, Depart. Alta Verapaz, alt. 4,500 pp.

M. Jan. 1888. Leg. H. von Tuerckheim.

77. Eupatorium Turckheimii, Klatt.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

52. Eupatorium

Coban, Depart. Alta Verapaz, alt. 4,600 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

1342. Eupatorium

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Apr. 1888. Leg. H. von Tuerckheim.

1177. Eupatorium

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1106. Mikania pyramidata, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 188.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1887. Leg. H. von Tuerckheim.

393. Erigeron Canadensis, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

7. Erigeron mucronatus, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

756. Erigeron scaposus, DC., var. latifolius, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

879. Erigeron subdecurrens, Schultz Bip.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

1037. Erigeron subdecurrens, Schultz Bip.

Quezaltenango, Depart. Quezaltenango, alt. 8,600 pp.

M. Oct. 1886. Leg. H. von Tuerckheim.

1354. Conyza asperifolia, Benth. et Hook.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Dec. 1887. Leg. H. von Tuerckheim.

335. Conyza asperifolia, Benth. et Hook.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

1180. Conyza Chilensis, Spreng.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

769. Conyza Chilensis, Spreng.

Coban, Depart. Alta Verapaz, alt 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

1089. Baccharis glutinosa, Pers.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Nov. 1886. Leg. H. von Tuerckheim.

1350. Baccharis hirtella, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Dec. 1887. Leg. H. von Tuerckheim.

389. Baccharis rhexioides, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

92. Achyrocline Moritziana, Klatt.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1883. Leg. H. von Tuerckheim.

353. Achyrocline Vargasiana, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

380. Gnaphalium spicatum, Lam.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

929. Clibadium arboreum, J. Donnell Smith

in Coult. Botan. Gaz. xiv. 26.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1105. Polymnia maculata, Cav.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1887. Leg. H. von Tuerckheim.

187. Polymnia Oaxacana, Schultz Bip.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

761. Melampodium brachyglossum, J. Donnell Smith in Coult. Botan. Gaz. xiii. 74.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

114. Melampodium brachyglossum, J. Donnell Smith in Coult. Botan. Gaz, xiii. 74.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

625. Ambrosia artemisiæfolia, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

1182. Heliopsis buphthalmoides, Dun.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

387. Siegesbeckia flosculosa, L'Herit.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

852. Gymnolomia patens, A. Gray.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

354. Mirasolia scaberrima, Benth. et Hook.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

760. Wedelia filipes, Hemsl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

853. Zexmenia Guatemalensis, J. Donnell Smith in Coult. Botan. Gaz. xiii. 188.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

336. Perymenium grande, Hemsl.

(*P. Türkheimii, Klatt.*)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Dec. 1886. Leg. H. von Tuerckheim.

763. Melanthera oxylepis, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

1121. Encelia pleistocephala, J. Donnell Smith in Coult. Botan. Gaz. xiii. 189.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1887. Leg. H. von Tuerckheim

1351. Verbesina diversifolia, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1888. Leg. H. von Tuerckheim.

1344. Verbesina Œrstediana, Benth.?

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1888. Leg. H. von Tuerckheim.

1110. Otopappus verbesinoides, Benth.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1887. Leg. H. von Tuerckheim.

758. Spilanthes beccabunga, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

124. Spilanthes Guatemalensis, Vatke.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

930. Spilanthes sessilifolia, Hemsl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

757. Hidalgoa ternata, Llav. et Lex.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

762. Bidens leucantha, Willd.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

1179. Bidens mollis, Pœpp. et Endl.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

297. Bidens Warszewicziana, Regel, var. simplicifolia, Regel.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

759. Galinsoga hispida, Benth.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

379. Calea integrifolia, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

1353. Calea trichotoma, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 299.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1887. Leg. H. von Tuerckheim.

1345. Calea Zacatechichi, Schlecht.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1888. Leg. H. von Tuerckheim.

931. Tagetes micrantha, Cav.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

1142. Tagetes microglossa, Benth.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

898. Liabum asclepiadeum, Schultz Bip.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

1151. Schistocarpha bicolor, Less.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

1079. Schistocarpha Lindenii,

(*Neurolæna Lindenii, Schultz Bip.*)

Sesisp, Depart. Alta Verapaz, alt. 3,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1041. Neurolæna lobata, R. Br.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1223. Neurolæna lobata, R. Br., var. indivisa, J. Donnell Smith

in Coult. Botan. Gaz. xiv. 26.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1024. Erechthites valerianæfolia, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

1183. Senecio Deppeanus, Hemsl.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1184. Cnicus conspicuus, Hemsl.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

83. Cnicus Mexicanus, Hemsl.

Coban, Depart. Alta Verapaz. alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

396. Cnicus nivalis, H. B. K.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

122. Chaptalia nutans, Hemsl.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Apr. 1886. Leg. H. von Tuerckheim.

498. Sonchus oleraceus, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Mart. 1887. Leg. H. von Tuerckheim.

727. Centropogon cordifolius, Benth.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

728. Centropogon (§ Siphocampyloides.)
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

1188. Lobelia Ghiesbreghtii, A. Gray.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

73. Lobelia laxiflora, H. B. K.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

22. Lobelia Türckheimii, Vatke.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

27. Lobelia
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

1190. Macleania cordata, Lemaire.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

64. Cavendishia crassifolia, Hemsl.
Coban, Depart. Alta Verapaz, alt. 4,600 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

941. Cavendishia pubescens, H. B. K.?
Sarax, Depart. Alta Verapaz, alt. 4,500 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

1026. Sophoclesia major, Benth. et Hook.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1887. Leg. H. von Tuerckheim.

40. Gaultheria hirtiflora, Benth.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Apr. 1886. Leg. H. von Tuerckheim.

370. Clethra suaveolens, Turcz.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

764. Monotropa coccinea, Zucc.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Sept. 1885. Leg. H. von Tuerckheim.

355. Centunculus pentandrus, R. Br.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

332. Myrsine myricoides, Schlecht.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Nov. 1886. Leg. H. von Tuerckheim.

921. Parathesis corymbosa, Hemsl.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

1365. Ardisia micrantha, J. Donnell Smith
in Coult. Botan. Gaz. xiv. 26.
Coban, Depart. Alta Verapaz, alt. 4,600 pp.
M. Mart. 1888. Leg. H. von Tuerckheim.

942. Ardisia pectinata, J. Donnell Smith
in Coult. Botan. Gaz. xii. 132.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

1035. Ardisia Tuerckheimii, J. Donnell Smith
in Coult. Botan. Gaz. xiii. 74.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

981. Odontadenia?
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

425. Asclepias Curassavica, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim

1251. Asclepias ?

Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

1290. Vincetoxicum Mexicanum, Watson.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1031. Gonolobus macranthus, Kze.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

680. Gonolobus picturatus, Hemsl.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

1124. Gonolobus velutinus, Schlecht, var. calycinus, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 189.

Pansamalá, Depart. Alta Verapaz.

Leg. H. von Tuerckheim.

422. Spigelia Humboldtiana, Cham. et Schl.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

1278. Spigelia Humboldtiana, Cham. et Schl.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1197. Buddleia Americana, L., form. (*B. decurrens, Cham. et Schlecht.*)

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

499. Buddleia floribunda, H. B. K. ?

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

747. Erythræa divaricata, Schaffn.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

388. Erythræa tetramera, Schiede.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

982. Læselia rupestris, Benth.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

204. Cobæa triflora, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 75.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Dec. 1886. Leg. H. von Tuerckheim.

8. Nama Jamaicense, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

1189. Hydrolea spinosa, L.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

162. Cordia riparia, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

980. Tournefortia bicolor, Swz., var. calycosa, J. Donnell Smith in Coult. Botan. Gaz. xiv. 27.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jul 1886. Leg. H. von Tuerckheim.

437. Tournefortia cymosa, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1885. Leg. H. von Tuerckheim.

1201. Heliotropium

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

743. Ipomœa cathartica, Poir.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

304. Ipomœa coccinea, L., var. pubescens, Cham. et Schl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Dec. 1886. Leg. H. von Tuerckheim.

744. Ipomœa discoidesperma, J. Donnell Smith

in Coult. Botan. Gaz. xiv. 27.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

101. Ipomœa fastigiata, Sweet.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1887. Leg. H. von Tuerckheim.

386. Ipomœa Türckheimii, Vatke.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Nov. 1886. Leg. H. von Tuerckheim.

706. Dichondra repens, Forst,
form. (*D. sericea, Sw.*)
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Sept. 1885. Leg. H. von Tuerckheim.

855. Cuscuta Americana, L.,
forma *floribus majusculis.*
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1886. Leg. H. von Tuerckheim.

979. Solanum callicarpæfolium, Kth. et Bouche.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

98. Solanum lanceolatum, Cav., var. sinuatum, DC.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

745. Solanum nudum, H. B. K.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1885. Leg. H. von Tuerckheim.

1226. Solanum olivæforme, J. Donnell Smith
in Coult. Botan. Gaz. xiv. 28.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

1381. Solanum torvum, Sw., var.?
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1888. Leg. H. von Tuerckheim.

923. Solanum sideroxyloides, Schlecht.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

1155. Solanum sideroxyloides, Schlecht., var. ocellatum, J. Donnell Smith
in Coult. Botan. Gaz. xiv. 27.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

1134. Solanum
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

1025. Solanum
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

25. Datura arborea, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

937. Cestrum aurantiacum, Lindl.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

749. Cestrum nocturnum, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1885. Leg. H. von Tuerckheim.

833. Cestrum

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1310. Ghiesbreghtia grandiflora, A. Gray.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1198. Russelia polyedra, Zucc.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1218. Tetranema evoluta, J. Donnell Smith

in Coult. Botan. Gaz. xiv. 28.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

826. Stemodia parviflora, Ait.

Coban, Depart. Alta Verapaz, alt 4,300 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

580. Herpestis chamædryoides, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

738. Vandellia diffusa, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1111. Veronica peregrina, L.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1887. Leg. H. von Tuerckheim.

1279. Buchnera pilosa, Benth.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

28. Castilleja communis, Benth.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

1112. Lamourouxia integerrima, J. Donnell Smith in Coult. Botan. Gaz. xiii. 189.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

398. Lamourouxia lanceolata, Benth.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

377. Utricularia

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

378. Utricularia

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

1228. Pinguicula caudata, Schlecht.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

1333. Pinguicula crenatiloba, DC.

San Pedro Carchá, Depart. Alta Verapaz, alt. 4,300 pp.
Leg. H. von Tuerckheim.

716. Gloxinia antirrhina, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Sept. 1885. Leg. H. von Tuerckheim.

10. Isoloma Deppeanum, Hemsl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

1083. Isoloma Schiedeanum, Hemsl.

Senahu, Depart. Alta Verapaz, alt. 3,500 pp.
M. Sept. 1886. Leg. H. von Tuerckheim.

730. Solenophora Endlerichiana, Hanst.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

733. Alloplectus tetragonus, Hanst.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

456. Alloplectus

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

866. Columnea glabra, Œrst.
Sarax, Depart. Alta Verapaz, alt. 4,600 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

729. Besleria glabra, Hanst.?
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

196. Besleria (§ Gasteranthus, Œrst.)
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

344. Anetanthus parviflorus, Benth. et Hook.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

1092. Hygrophila lacustris, Nees.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Dec. 1886. Leg. H. von Tuerckheim.

857. Ruellia Macrosiphon,
(*Cryphiacanthus Macrosiphon, Nees.*)
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

856. Louteridium Donnell-Smithii, Watson
in Proc. Am. Ac. xxiii. 284; Coult. Botan. Gaz. xiv. 28.
Pansamala, Depart. Alta Verapaz, alt. 3,800 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

782. Blechum Brownei, Juss.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Sept. 1886. Leg. H. von Tuerckheim.

903. Lepidagathis alopecuroidea, R. Br.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Apr. 1886. Leg. H. von Tuerckheim.

674. Aphelandra acutifolia, Nees.
Rubeleruz, Depart. Alta Verapaz, alt. 3,000 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

825. Aphelandra pectinata, Willd.
Sacolol, Depart. Alta Verapaz, alt. 3,000 pp.
M. Oct. 1885. Leg. H. von Tuerckheim.

741. Justicia
Pansamala, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

732. Beloperone Pansamalana, J. Donnell Smith
in Coult. Botan. Gaz. xiii. 75.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Oct. 1885. Leg. H. von Tuerckheim.

880. Dianthera inæqualis, Benth. et Hook.
Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.
M. Mart. 1886. Leg. H. von Tuerckheim.

834. Dianthera Mexicana, Benth. et Hook.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jan. 1886. Leg. H. von Tuerckheim.

824. Jacobinia aurea, Hemsl.
Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.
M. Oct. 1885. Leg. H. von Tuerckheim.

740. Thyrsacanthus geminatus, J. Donnell Smith in Coult. Botan. Gaz. xiii. 75.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Oct. 1885. Leg. H. von Tuerckheim.

734. Lantana hispida, H. B. K.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

1082. Lantana hispida, H. B. K.
San Pedro Carchá, Depart. Alta Verapaz, alt. 3,500 pp.
M. Sept. 1886. Leg. H. von Tuerckheim.

39. Lantana tiliæfolia, Cham. et Schl.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

382. Lippia callicarpifolia, Cham. et Schl.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

1373. Lippia lanceolata, Michx.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

1088. Lippia myriocephala, Cham. et Schl.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Nov. 1886. Leg. H. von Tuerckheim.

1027. Stachytarpheta dichotoma, Vahl.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

1068. Verbena exilis, Schauer.

Quezaltenango, Depart. Quezaltenango, alt. 8,600 pp.
M. Oct. 1886. Leg. H. von Tuerckheim.

904. Verbena officinalis, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

913. Verbena polystachya, H. B. K.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

935. Cornutia grandifolia, Schauer.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

735. Catopheria capitata, Benth.

Rubeleruz, Depart. Alta Verapaz, alt. 3,000 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

1360. Catopheria Chiapensis, A. Gray.

Coban, Depart. Alta Verapaz, alt 4,300 pp.
M. Febr. 1888. Leg. H. von Tuerckheim.

718. Marsypianthes hyptioides, Mart.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

736. Hyptis atrorubens, Poit.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

737. Hyptis capitata, Jacq.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

337. Hyptis Guatemalensis, Vatke.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Nov. 1886. Leg. H. von Tuerckheim.

1195. Hyptis pectinata, Poit.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

719. Hyptis spicata, Poit.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

670. Micromeria Xalapensis, Benth.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1192. Salvia amarissima, Ort.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

110. Salvia amethystina, Smith.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

299. Salvia hyptoides, Mart. et Gal.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

345. Salvia involucrata, Cav.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Nov 1886. Leg. H. von Tuerckheim.

1193. Salvia lavanduloides, H. B. K.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1090. Salvia occidentalis, Sw.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Nov. 1886. Leg. H. von Tuerckheim.

1194. Salvia pulchella, DC.

Purulá, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

500. Salvia purpurea, Cav.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Nov. 1886. Leg. H. von Tuerckheim.

933. Salvia

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

780. Salvia

Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.

M. Oct. 1885. Leg. H. von Tuerckheim.

1309. Scutellaria lutea, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 76.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1029. Scutellaria Mociniana, Benth.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

406. Scutellaria orichalcea, J. Donnell Smith

in Coult. Botan. Gaz. xiv. 29.
Chajrax, Depart. Alta Verapaz, alt. 2,000 pp.
M. Dec. 1887. Leg. H. von Tuerckheim.

1193. Scutellaria purpurascens, Sw., var. heterophylla, Benth.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

508. Brunella vulgaris, L.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

?34. Stachys parvifolia, Mart. et Gal.?

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

932. Leonurus Sibiricus, L.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

742. Teucrium inflatum, Sw.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1885. Leg. H. von Tuerckheim.

94. Plantago Virginica, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

411. Amarantus spinosus, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

16. Telanthera obovata, Mart. et Gal.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Apr. 1886. Leg. H. von Tuerckheim.

416. Telanthera Türckheimii, Vatke.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

1104. Iresine celosioides, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

891. Chenopodium ambrosioides, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

517. Polygonum acuminatum, H. B. K., var. Weddellii, Meisn.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1888. Leg. H. von Tuerckheim.

243. Polygonum Türckheimii, Vatke.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1217. Piper auritum, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

940. Piper auritum, H. B. K., var. amplifolium, C. DC.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1219. Piper Jalapense, DC.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

1220. Piper lapathifolium, Steud.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

976. Piper Mexicanum, C. DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1174. Piper patulum, Bertol.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

975. Piper

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

1038. Piper

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

1122. Piper

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1887. Leg. H. von Tuerckheim.

433. Peperomia Muelleri, C. DC.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

421. Peperomia reflexa, A. Dietr., var. enervulosa, DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1885. Leg. H. von Tuerckheim.

919. Siparuna riparia, A. DC.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1163. Daphnopsis radiata, J. Donnell Smith

in Coult. Botan. Gaz. xiv. 29.

Coban, Depart. Alta Verapaz, alt. 4,600 pp.

M. Febr. 1888. Leg. H. von Tuerckheim.

1039. Daphnopsis (§ *Neivira*, *Benth. et Hook.*)

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1304. Loranthus spirostylis, DC.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

435. Phoradendron flavescens, Nutt.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1132. Phoradendron

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

973. Phoradendron

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1044. Helosis Mexicana, Liebm.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

688. Euphorbia dentata, Michx.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

76. Euphorbia hypericifolia, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

1160. Euphorbia lancifolia, Schlecht.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1887. Leg. H. von Tuerckheim.

457. Euphorbia pilulifera, L., var. procumbens, Boiss.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1885. Leg. H. von Tuerckheim.

543. Euphorbia pulcherrima, Willd.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Nov. 1886. Leg. H. von Tuerckheim.

146. Euphorbia

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

63. Phyllanthus Carolinensis, Walt.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1885. Leg. H. von Tuerckheim.

410. Phyllanthus lathyroides, H. B. K., form. *genuinus*, *Muell. Arg.*

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

72. Acalypha alopecuroides, Jacq.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

49. Acalypha

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1242. Acalypha

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

214. Ricinus communis, L.

Coban, Depart. Alta Verapaz. alt. 4,300 pp.

M. Febr. 1888. Leg. H. von Tuerckheim.

103. Alchornea

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

402. Tragia Mexicana, Muell. Arg.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1231. Trophis Americana, L.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

751. Dorstenia Choconiana, Watson, var. integrifolia, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 76.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

310. Dorstenia contrajerva, L., var. Houstoni, Bureau.

Sesisp, Depart. Alta Verapaz, alt. 3,000 pp.
M. Sept. 1885. Leg. H. von Tuerckheim.

752. Pilea microphylla, Liebm.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

753. Pilea pubescens, Liebm.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

974. Pilea pubescens, Liebm.

Pansamala, Depart. Alta Verapaz, alt. 4,000 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

1270. Pilea rubiæfolia, Bl.?

Rubeleruz, Depart. Alta Verapaz, alt. 3,000 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

939. Pilea

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

754. Pilea

Pansamala, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

1243. Pilea

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

1040. Pilea

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

717. Bœhmeria cylindrica, Willd.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

892. Myriocarpa heterostachya, J. Donnell Smith in Coult. Botan. Gaz. xii. 133; xiii. 29.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Mart. 1886. Leg. H. von Tuerckheim.

366 Myriocarpa heterostachya, J. Donnell Smith in Coult. Botan. Gaz. xii. 133; xiii. 29.
Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

765. Phenax hirtus, Wedd.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Sept. 1885. Leg. H. von Tuerckheim.

1357. Debregeasia longifolia, Wedd.
(Advena.)
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1888. Leg. H. von Tuerckheim.

338. Myrica Xalapensis, H. B. K.
Coban, Depart. Alta Verapaz. alt. 4,300 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

351. Alnus acuminata, H. B. K.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

333. Salix Humboldtiana, Willd., var. falcata, Anders.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

902. Dictyostegia campanulata, Karst.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
1886. Leg. H. von Tuerckheim.

1042. Dictyostegia campanulata, Karst.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

697. Pleurothallis
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

801. Pleurothallis
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Sept. 1886. Leg. H. von Tuerckheim.

798. Pleurothallis
Coban, Depart. Alta Verapaz, alt. 4,500 pp.
M. Dec. 1887. Leg. H. von Tuerckheim.

700. Pleurothallis

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

797. Pleurothallis

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Oct. 1886. Leg. H. von Tuerckheim.

1012. Stelis

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

6?8. Lepanthes

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

799. Restrepia

Coban, Depart. Alta Verapaz, alt. 4,500 pp.

M. Jan. 1888. Leg. H. von Tuerckheim.

45. Masdevallia

Coban, Depart. Alta Verapaz, alt. 4,500 pp.

M. Febr. 1888. Leg. H. von Tuerckheim.

967. Masdevallia

Ainal, Depart. Alta Verapaz, alt. 4,500 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

1101. Arpophyllum alpinum, Lindl.

Totonicapan, Depart. Totonicapan, alt. 10,000 pp.

M. Nov. 1886. Leg. H. von Tuerckheim.

1140. Arpophyllum spicatum, Llav. et Lex.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

793. Microstylis umbellulata, Lindl.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

1093. Cœlia Guatemalensis, Reichb. f.?

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

365. Bletia verecunda, R. Br.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

1301. Hartwegia purpurea, Lindl.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

1380. Epidendrum cochleatum, L.

Chajrax, Depart. Alta Verapaz, alt. 2,000 pp.
M. Febr. 1888. Leg. H. von Tuerckheim.

1143. Epidendrum culmidophorum, Reichb. f.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

106. Epidendrum floribundum, H. B. K.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

1299. Epidendrum glaucum, Lindl.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

1374. Epidendrum polybulbon, Swz.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

1016. Zygopetalum (§ Warszewiczella.)

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

793[B]. Eriopsis elegans, Reichb. f.

Pansamalá, Depart. Alta Verapaz, alt. 4,500 pp.
M. Jan. 1885. Leg. H. von Tuerckheim.

1095. Xylobium elongatum, Hemsl.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

992. Xylobium pallidiflorum,

(*Maxillaria pallidiflora, Hook.*)
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1887. Leg. H. von Tuerckheim.

226. Lycaste Skinneri, Lindl.

Coban, Depart. Alta Verapaz, alt. 4,500 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

1216. Maxillaria alba, Lindl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Mart. 1886. Leg. H. von Tuerckheim.

1141. Maxillaria variabilis, Batem.

Pansamalá, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1887. Leg. H. von Tuerckheim.

993. Maxillaria Yzabalana, Watson

in Proc. Am. Ac. xxiii. 226.
Ainal, Depart. Alta Verapaz, alt. 4,500 pp.
M. Mart. 1887. Leg. H. von Tuerckheim.

1247. Dichæa squarrosa, Lindl.?

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

1280. Comparettia falcata, Pœpp. et Endl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1887. Leg. H. von Tuerckheim.

1302. Oncidium leucochilum, Batem.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

107. Brassia brachiata, Lindl.

Pansamalá, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1887. Leg. H. von Tuerckheim.

696. Ornithocephalus Salvinii, Reichb. f.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

1014. Lockhartia

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

131. Sobralia xantholeuca, Reichb. f.

San Cristobal, Depart. Alta Verapaz, alt. 4,500 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

966. Ponthieva glandulosa, R. Br.

Pansamalá, Depart. Alta Verapaz, alt. 4,500 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

14. Ponthieva Guatemalensis, Reichb. f.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1888. Leg. H. von Tuerckheim.

1169. Spiranthes

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

1015. Physurus

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1883. Leg. H. von Tuerckheim.

1248. Selenipedium caudatum, Reichb. f.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

1043. Stromanthe Tonckat, Eichl.

(*Maranta Tonckat, Aubl.*)

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1886. Leg. H. von Tuerckheim

1239. Calathea (§ Monostiche.)

Rubeleruz, Depart. Alta Verapaz, alt. 3,000 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

1173. Tillandsia anceps, Lodd.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1172. Tillandsia bulbosa, Hook.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

325. Tillandsia usneoides, L.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

911. Tillandsia Valenzuelana, A. Rich.

Mauricio, Depart. Escuintla, alt. 600 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

1298. Pitcairnia Tuerckheimii, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 193.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1297. Sisyrinchium tinctorium, H. B. K.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

33. Hypoxis racemosa, J. Donnell Smith

in Coult. Botan. Gaz. xiv. 29.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

44. Zephyranthes sessilis, Herb.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1879. Leg. H. von Tuerckheim.

35. Hippeastrum Reginæ, Herb.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

677. Bomarea acutifolia, Herb.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

455. Hymenocallis Caymanensis, Herb. ?

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1241. Dioscorea trifoliata, H. B. K.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

890. Smilax invenusta, Kth., var. armata, A. DC.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

231. Smilacina thyrsoidea, Hemsl.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

547. Pontederia cordata, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Dec. 1886. Leg. H. von Tuerckheim.

201. Xyris

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

458. Mayaca Aubletii, Schott et Endl.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

676. Commelyna pallida, Clarke.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

253. Tinantia fugax, Scheidw.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1213. Spironema

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1077. Campelia Zanonia, H. B. K.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Sept. 1886. Leg. H. von Tuerekheim.

431. Juncus marginatus, Rostk.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Apr. 1886. Leg. H. von Tuerckheim.

862. Chamædorea

Pansamalá, Depart. Alta Verapaz, alt 3,800 pp.
M. Apr. 1887. Leg. H. von Tuerckheim.

1078. Chamædorea

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Sept. 1886. Leg. H. von Tuerckheim.

1161. Chamædorea

Chicoya, Depart. Alta Verapaz, alt. 4,600 pp.
M. Mart. 1887. Leg. H. von Tuerckheim.

1244. Chamædorea

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

1371. Carludovica utilis, Benth. et Hook.?

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Febr. 1888. Leg. H. von Tuerckheim.

864. Anthurium amænum, Kunth.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

1355. Anthurium scandens, Engl., var. violaceum, Engl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Nov. 1887. Leg. H. von Tuerckheim.

1103. Anthurium

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

394. Heteranthera reniformis, Ruiz et Pav.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

1263. Cyperus Haspan, L.

determ. Britton.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1887. Leg. H. von Tuerckheim.

672. Cyperus Humboldtianus, Schultes.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

705. Cyperus humilis, Kunth, var. elatior, Britton in Torr. Bull. xv. 99.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1262. Cyperus ochraceus, Vahl.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

634. Cyperus Olfersianus, Kunth.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1286. Cyperus prolixus, H. B. K.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1240. Cyperus thyrsiflorus, Jungh.

determ. Britton.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

663. Kyllingia cæspitosa, Nees, var. elatior, Bœckl.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

544. Heleocharis geniculata, Rœm. et Sch.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1266. Heleocharis nodulosa, Schultes.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

429. Heleocharis Rothiana, Bœckl.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

1283. Heleocharis spiralis, R. Br.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1383. Heleocharis sulcata, Nees.

determ. C. B. Clarke.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1888. Leg. H. von Tuerckheim.

900. Heleochāris (§ Chætocyperus.)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1267. Heleocharis

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

144. Dichromena nervosa, Vahl.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

1293. Fimbristylis ciliatifolius, Britton, var. pilosus, Britton in Torr. Bull. xv. 102.

determ. Britton.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1264. Fimbristylis polymorpha, Bœckl.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1294. Fimbristylis polymorpha, Bœeckl.

determ. Britton.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

661. Fuirena

(=1587 Fendler Pl. Venezuel.)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1257. Rhynchospora aurea, Vahl.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1256. Rhynchospora florida, Nees.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1261. Rhynchospora Mexicana, Steud.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1258. Rhynchospora polyphylla, Vahl.

determ. C. B. Clarke.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1260. Rhynchospora

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1259. Scleria

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1239. Uncinia Mexicana, Steud.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

662. Carex cladostachya, Wahlb.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

659. Carex Donnell-Smithii, Bailey

in Mem. Torr. Botan. Cl. I.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

660. Carex Pseudocyperus, L.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

1265. Carex straminea, Schk., var. fœnea, Torr.

determ. Britton.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

658. Paspalum Cordovense, Fourn. ?

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

116. Paspalum paniculatum, L.

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1887. Leg. H. von Tuerckheim.

1253. Paspalum platycaule, Poir.

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

66. Paspalum purpurascens, Ell.

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1255. Panicum aturense, H. B. K.

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

1254. Panicum laxum, Swz.

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

56. Panicum nitidum, Lam.

determ. Vasey.

Coban, Depart. Alta Verapaz. alt. 4,300 pp.

M. Jun. 1887. Leg. H. von Tuerckheim.

428. Panicum nitidum, Lam.

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1888. Leg. H. von Tuerckheim.

908. Panicum pallens, Swz.

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

715. Panicum rhizophorum, Fourn.

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

657. Panicum rugulosum, Trin.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1287. Panicum sabulicolum, Nees ?

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1887. Leg. H. von Tuerckheim.

1363. Oplismenus Humboldtianus, Nees.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1888. Leg. H. von Tuerckheim.

438. Oplismenus Liebmanni, Fourn.
Coban, Depart. Alta Verapaz, alt 4,300 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

1331. Oplismenus setarius, Rœm. et Sch.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

81. Pennisetum crinitum, Scribn.
determ. Vasey.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

34. Pennisetum bambusiforme, Hemsl.
determ. Vasey.
Pansamalá, Depart. Alta Verapaz, alt. 4,300 pp.
M. Apr. 1888. Leg. H. von Tuerckheim.

655. Sporobolus densiflorus,
(*Vilfa densiflora, Fourn.*)
determ. Vasey.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1887. Leg. H. von Tuerckheim.

655[B]. Sporobolus Indicus, R. Br.,
forma. determ. Vasey.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jun. 1887. Leg. H. von Tuerckheim.

654. Eleusine Indica, Gærtn.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

1362. Pereilema Braziliana, Trin.
determ. Vasey.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Mart. 1888. Leg. H. von Tuerckheim.

1292. Eragrostis limbata, Fourn.
determ. Vasey.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

925. Eragrostis limbata, Fourn. ?
determ. Vasey.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

656. Eragrostis Purshii, Schrad., var. ?
determ. Vasey.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

466. Zeugites Mexicana, Trin.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Oct. 1885. Leg. H. von Tuerckheim.

907. Poa infirma, H. B. K.

determ. Vasey.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

675. Gleichenia pubescens, H. B. K.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1238. Cyathea arborea, Sm.

Coban, Depart. Alta Verapaz, alt. 4,500 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

24. Cyathea Bourgæi, Fourn.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

1008. Alsophila armata, Presl.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1007. Alsophila bicrenata, Fourn.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

845. Alsophila Salvinii, Hook.

Coban, Depart. Alta Verapaz, alt. 4,600 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

1053. Dicksonia cicutaria, Swz., var.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

947. Hymenophyllum asplenoides, Swz.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

649. Hymenophyllum ciliatum, Swz.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1885. Leg. H. von Tuerckheim

948. Hymenophyllum fucoides, Swz.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

951. Hymenophyllum hirsutum, Swz.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

647. Hymenophyllum interruptum, Kunze.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

650. Hymenophyllum microcarpum, Desv.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

648. Hymenophyllum Polyanthos, Swz.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

988. Hymenophyllum Polyanthos, Swz., var.
(*H. clavatum, Swz.*)
Chisoyonito, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

965. Hymenophyllum undulatum, Swz.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

848. Trichomanes crispum, L.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

950. Trichomanes emarginatum, Presl.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

858. Trichomanes Mandioccanum, Raddi.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Mart. 1886. Leg. H. von Tuerckheim.

949. Trichomanes pyxidiferum, L.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

831. Trichomanes repens, Schott,
var. stipitatum, Sturm.
(*T. radicans*, auctorum plurinorum, non Swartz.)
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jan. 1886. Leg. H. von Tuerckheim.

847. Trichomanes reptans, Swz.
Coban, Depart. Alta Verapaz, alt. 4,500 pp.
M. Febr. 1886. Leg. H. von Tuerckheim.

916. Trichomanes reptans, Swz.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

652. Trichomanes sinuosum, Richard.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

917. Trichomanes tenerum, Sprengl.?

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

846. Trichomanes trichoideum, Swz.

Coban, Depart. Alta Verapaz, alt. 4,600 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

830. Lindsaya Guyanensis, Dryand.,

form. major, Hook.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

870. Adiantum Æthiopicum, L.

Sesisp, Depart. Alta Verapaz, alt. 3,000 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

827. Adiantum Capillus-Veneris, L.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

810. Adiantum concinnum, H. B. K.

Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.

M. Oct. 1886. Leg. H. von Tuerckheim.

711. Adiantum Feei, Thos. Moore.

Coban, Depart. Alta Verapaz, alt. 4,400 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

837. Adiantum macrophyllum, Swz.

Rubeleruz, Depart. Alta Verapaz, alt. 3,000 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

808. Adiantum tetraphyllum, Willd.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Oct. 1885. Leg. H. von Tuerckheim.

492. Adiantum trapeziforme, L.

S. Pedro Garchá, Depart. Alta Verapaz, alt. 3,500 pp.

Leg. H. von Tuerckheim.

1340. Hypolepis repens, Presl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1888. Leg. H. von Tuerckheim.

871. Cheilanthes farinosa, Kaulf.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Oct. 1886. Leg. H. von Tuerckheim.

1166. Cheilanthes microphylla, Swz.

Purula, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

1048. Cheilanthes microphylla, Swz.

Rubeleruz, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1167. Pellæa angustifolia, Baker.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

843. Pteris aquilina, L., var. arachnoidea, Baker.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

1271. Pteris grandifolia, L.

Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

491. Pteris Kunzeana, Agardh.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

628. Pteris laciniata, Willd.,

form. (*Lonchites Ghiesbreghtii, Linden.*)

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

1009. Pteris longifolia, L.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

915. Pteris podophylla, Swz., var.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

552. Pteris quadriaurita, Retz.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

640. Lomaria attenuata, Willd.

Senahu, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

1131. Lomaria onocleoides, Spreng.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

353. Lomaria procera, Spreng.,
form. (*L. spectabilis, Liebm.*)
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Dec. 1886. Leg. H. von Tuerckheim.

638. Blechnum occidentale, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

1288. Woodwardia radicans, Smith.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

573. Asplenium alatum, H. B. K.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
Leg. H. von Tuerckheim.

953. Asplenium arboreum, Willd.
Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

630. Asplenium auriculatum, Swz.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

635. Asplenium auritum, Swz.,
form. typica.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

634. Asplenium auritum, Swz.,
var. fœniculatum, Baker.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

632. Asplenium auritum, Swz.,
var. fœniculatum, Baker?
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

1282. Asplenium auritum, Swz.,
var. serratum, Baker.
Rubeleruz, Depart. Alta Verapaz, alt. 3,000 pp.
M. Jun. 1887. Leg. H. von Tuerckheim.

1064. Asplenium auritum, Swz.,
var. serratum, Baker.
Retaluleu, Depart. Retaluleu, alt. 760 pp.
M. Oct. 1886. Leg. H. von Tuerckheim.

952. Asplenium auritum, Swz, var. sulcatum, Baker.

Sacolal, Depart. Alta Verapaz, alt. 3,500 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

828. Asplenium celtidifolium, Kunze.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jan. 1886. Leg. H. von Tuerckheim.

867. Asplenium cicutarium, Swz.

Sesisp, Depart. Alta Verapaz, alt. 3,000 pp.
M. Mart. 1886. Leg. H. von Tuerckheim.

1011. Asplenium costale, Swz.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Sept. 1886. Leg. H. von Tuerckheim.

970. Asplenium crenulatum, Baker.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

1010. Asplenium divaricatum, Kunze.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

1146. Asplenium Filix-fœmina, Bernh.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jan. 1887. Leg. H. von Tuerckheim.

1065. Asplenium formosum, Willd.

Retaluleu, Depart. Retaluleu, alt. 760 pp.
M. Oct. 1886. Leg. H. von Tuerckheim.

636. Asplenium Franconis, Mett.

San Pedro Carchá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

1289. Asplenium furcatum, Thunb.

Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

629. Asplenium furcatum, Thunb.

Chisoyonito, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

631B. Asplenium hastatum, Klotzsch.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jan. 1886. Leg. H. von Tuerckheim.

631. Asplenium lunulatum, Swz.,

form. (*A. pteropus, Kaulf.*)

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

873. Asplenium monanthemum, L.

Coban, Depart. Alta Verapaz, alt. 4,600 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

714. Asplenium parvulum, Mart. et Gal.

Coban, Depart. Alta Verapaz, alt. 4,200 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

714[B]. Asplenium parvulum, Mart. et Gal.

Chacalte, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1059. Asplenium plantagineum, L.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1050. Asplenium pumilum, Swz.

San Pedro Carchá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept 1886. Leg. H. von Tuerckheim.

1058. Asplenium radicans, Schk.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

918. Asplenium rhizophyllum, Kunze.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

829. Asplenium rhizophyllum, Kunze,

form. (*A. microphyllum, Presl.*)

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

849. Asplenium Serra, Langs. et Fisch., var.

(*A. progrediens, Fee.*)

Pansamalá, Depart. Alta Verapaz, alt 4,000 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

850. Asplenium Vera-pax, J. Donnell Smith

in Coult. Botan. Gaz. xiii. 77.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

633. Scolopendrium nigripes, Hook.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim

1046. Didymochlæna lunulata, Desv.

Pansamalá, Depart. Alta Verapaz, alt. 3,500 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

868. Aspidium glandulosum, Hook. et Grev.

Sesisp, Depart. Alta Verapaz, alt. 4,000 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

1051. Aspidium juglandifolium, Kunze.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

768. Aspidium juglandifolium, Kunze.

Petet, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

807. Aspidium latifolium, Presl.

Sacolal, Depart. Alta Verapaz, alt. 3,500 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

851. Aspidium triangulum, Swz.

Coban, Depart. Alta Verapaz, alt. 4,500 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

806. Aspidium trifoliatum, Swz.

Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.

M. Oct. 1885. Leg. H. von Tuerckheim.

467. Aspidium trifoliatum, Swz.

Coban, Depart. Alta Verapaz. alt. 4,300 pp.

1880. Leg. H. von Tuerckheim.

838. Aspidium trifoliatum, Swz.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

1054. Nephrodium catocarpum, Hook.?

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

168. Nephrodium conterminum, Desv.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

805. Nephrodium conterminum, Desv.

Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.

M. Oct. 1885. Leg. H. von Tuerckheim.

667. Nephrodium Fendleri, Baker, var. paucipinnatum, J. Donnell Smith

in Coult. Botan. Gaz. xii. 134.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jul. 1883. Leg. H. von Tuerckheim.

767. Nephrodium Fendleri, Baker, var. paucipinnatum, J. Donnell Smith

in Coult. Botan. Gaz. xii. 134.

Petet, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

626. Nephrodium hirtum, Hook.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

839. Nephrodium macrophyllum, Baker.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

1052. Nephrodium patulum, Baker.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

703. Nephrodium patulum, Baker, form. (*Aspidium chærophylloides, Moritz.*)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

704. Nephrodium Tuerckheimii, J. Donnell Smith in Coult. Botan. Gaz. xiii. 133.

Coban, Depart. Alta Verapaz, alt. 4,500 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

1055. Nephrodium villosum, Presl.?

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1056. Nephrodium villosum, Presl.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

666. Nephrolepis cordifolia, Presl.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

666[B]. Nephrolepis cordifolia, Presl., var. (*N. pectinata, Schott.*)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Apr. 1886. Leg. H. von Tuerckheim.

983. Oleandra neriiformis, Cav.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

642. Polypodium adnatum, Kunze.

Pansamalá, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

964. Polypodium albo-punctatum, Baker.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

637. Polypodium angustifolium, Swz.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

1047. Polypodium angustifolium, Swz.,
form. (*P. ensifolium, Willd.*)
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Oct. 1886. Leg. H. von Tuerckheim.

23. Polypodium angustum, Mett.
Cóban, Depart. Alta Verapaz. alt. 4,300 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

968. Polypodium aureum, L.,
var. areolatum, Baker.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

641. Polypodium cheilosticton, Fee.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

553. Polypodium crassifolium, L.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1885. Leg. H. von Tuerckheim.

1336. Polypodium chnoodes, Spreng.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jan. 1888. Leg. H. von Tuerckheim.

645. Polypodium elasticum, Rich.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

495[B]. Polypodium elongatum, Swz.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1880. Leg. H. von Tuerckheim.

1291. Polypodium fraternum, Cham. et Schl.
Santa Rosa, Depart. Baja Verapaz, alt. 5,000 pp.
M. Jul. 1887. Leg. H. von Tuerckheim.

482. Polypodium fraxinifolium, Jacq.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

1. Polypodium Friedrichsthalianum, Kunze.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1885. Leg. H. von Tuerckheim.

1338. Polypodium Guatemalense, Hook.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1888. Leg. H. von Tuerckheim.

1057. Polypodium Hemsleyanum, Baker.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

702. Polypodium incanum, Swz.

Rubeleruz, Depart. Alta Verapaz, alt. 3,000 pp.

M. Aug. 1886. Leg. H. von Tuerckheim

994. Polypodium Jalapense,

(*Campyloneuron Jalapense, Fee.*)

Sacolal, Depart. Alta Verapaz, alt. 3,500 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

994[B]. Polypodium Jalapense, var.

(*P. costatum, Liebm.*)

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

844. Polypodium jubæforme, Kaulf.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

495. Polypodium lanceolatum, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1880. Leg. H. von Tuerckheim.

644. Polypodium loriceum, L.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

1335. Polypodium percussum, Cav.

Chajrax, Depart. Alta Verapaz, alt. 1,500 pp.

M. Jan. 1888. Leg. H. von Tuerckheim.

53. Polypodium pilosissimum, Mart. et Gal.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

479. Polypodium pilosissimum, Mart. et Gal.

Tactic, Depart. Alta Verapaz, alt. 5,000 pp.

1881. Leg. H. von Tuerckheim.

643. Polypodium plebeium, Schlecht.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

15. Polypodium plectolepis, Hook.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

1337. Polypodium plesiosorum, Kunze.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1887. Leg. H. von Tuerckheim.

646. Polypodium plesiosorum, Kunze.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

712. Polypodium reptans, Swz.

Coban, Depart. Alta Verapaz, alt. 4,400 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

712[B]. Polypodium reptans, Swz.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

971. Polypodium rude, Kunze.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

13. Polypodium serrulatum, Mett.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

963. Polypodium suspensum, L.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

665. Polypodium suspensum, L.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

946. Polypodium trichomanoides, Swz.

Coban, Depart. Alta Verapaz, alt. 4,500 pp.

M. Jun. 1886. Leg. H. von Tuerckheim.

673. Polypodium

(*P. trilobo, Cav., proximum.*)

Rubeleruz, Depart. Alta Verapaz, alt. 3,000 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

779. Gymnogramme calomelanos, Kaulf.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Dec. 1885. Leg. H. von Tuerckheim.

1066. Gymnogramme calomelanos, Kaulf.

Retaluleu, Depart. Retaluleu, alt. 760 pp.

M. Oct. 1886. Leg. H. von Tuerckheim.

962. Gymnogramme Mexicana, Baker.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

779B. Gymnogramme tartarea, Desv.
Tamahu, Depart. Alta Verapaz, alt. 5,000 pp.
M. Maj. 1886. Leg. H. von Tuerckheim.

505. Gymnogramme trifoliata, Desv.
Tamahu, Depart. Alta Verapaz, alt. 4,500 pp.
Leg. H. von Tuerckheim.

961. Antrophyum ensiforme, Hook.
Pansamalá, Depart. Alta Verapaz, alt. 4,500 pp.
M. Jun. 1886. Leg. H. von Tuerckheim.

874. Antrophyum lanceolatum, Kaulf.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

811. Vittaria lineata, Swz.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Dec. 1885. Leg. H. von Tuerckheim.

549. Hemionitis palmata, L.
Chansiquin, Depart. Alta Verapaz, alt. 1,200 pp.
M. Jul. 1880. Leg. H. von Tuerckheim.

995. Acrostichum latifolium, Swz.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

639. Acrostichum latifolium, Swz.
San Pedro Carchá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Jun. 1885. Leg. H. von Tuerckheim.

997. Acrostichum latifolium, Swz.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

1339. Acrostichum elongatum, Kunze.
Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.
M. Nov. 1887. Leg. H. von Tuerckheim.

996. Acrostichum elongatum, Kunze.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Aug. 1886. Leg. H. von Tuerckheim.

1250. Acrostichum Lloense, Hook.
Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.
M. Maj. 1887. Leg. H. von Tuerckheim.

1001. Acrostichum muscosum, Swz.
Coban, Depart. Alta Verapaz, alt. 4,300 pp.
M. Jul. 1886. Leg. H. von Tuerckheim.

157. Acrostichum peltatum, Swz.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

1003. Acrostichum recognitum, Kunze.

Pansamalá, Depart. Alta Verapaz, alt 4,000 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

954. Acrostichum scolopendrifolium, Raddi.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

955. Acrostichum scolopendrifolium, Raddi.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

1129. Acrostichum sorbifolium, L.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

1004. Acrostichum squamosum, Swz.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

1002. Acrostichum tectum, Willd.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

256. Osmunda cinnamomea, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

26. Osmunda regalis, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

1060. Anemia Mexicana, Klotzsch.,

form. (*A. speciosa, Presl.*)

Chicacao, Depart. Alta Verapaz, alt. 3,500 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

1061. Anemia Phyllitidis, Swz.

Chicacao, Depart. Alta Verapaz, alt. 3,500 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

781. Lygodium heterodoxum, Kunze.

Rubeleruz, Depart. Alta Verapaz, alt. 2,500 pp.

M. Oct. 1885. Leg. H. von Tuerckheim.

1237. Lygodium venustum, Swz.

Setzat, Depart. Alta Verapaz, alt. 3,000 pp.

M. Maj. 1887. Leg. H. von Tuerckheim.

876. Lygodium venustum, Swz.

Mauricio, Depart. Escuintla, alt. 600 pp.

M. Mart. 1886. Leg. H. von Tuerckheim.

1006. Marattia alata, Smith.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Febr. 1887. Leg. H. von Tuerckheim.

998. Danæa cuspidata, Liebm.?

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Sept. 1886. Leg. H. von Tuerckheim.

603. Ophioglossum reticulatum, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1886. Leg. H. von Tuerckheim.

1168. Botrychium ternatum, Swz., var. obliquum, Milde.

Purulá, Depart. Baja Verapaz, alt. 5,000 pp.

M. Apr. 1887. Leg. H. von Tuerckheim.

401. Botrychium Virginianum, Swz., form. (*var. Mexicanum, Hook.*)

Coban, Depart. Alta Verapaz, alt. 4,600 pp.

M. Mart. 1887. Leg. H. von Tuerckheim.

958. Lycopodium aqualupinum, Spring.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

220. Lycopodium cernuum, L.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Jul. 1885. Leg. H. von Tuerckheim.

551. Lycopodium dichotomum, Jacq., form. (*L. Mandioccanum, Raddi.*)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Aug. 1885. Leg. H. von Tuerckheim.

959. Lycopodium linifolium, L.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

957. Lycopodium linifolium, L., var. sanguineum, Spring.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

504. Lycopodium reflexum, Lam.

Tactic, Depart. Alta Verapaz, alt. 4,800 pp.

M. Maj. 1886. Leg. H. von Tuerckheim.

869. Lycopodium taxifolium, L.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

956. Lycopodium verticillatum, L.

Coban, Depart. Alta Verapaz, alt. 4,500 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

956B. Lycopodium verticillatum, L., var. filiforme, Spring.

Coban, Depart. Alta Verapaz, alt. 4,500 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

832. Selaginella binervis, Liebm.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jan. 1886. Leg. H. von Tuerckheim.

713. Selaginella cuspidata, Link., form. (*S. incana, Spring.*)

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

701. Selaginella flabellata, Spring.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

M. Sept. 1885. Leg. H. von Tuerckheim.

972. Selaginella geniculata, Spring.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jul. 1886. Leg. H. von Tuerckheim.

4. Selaginella geniculata, Spring.

Coban, Depart. Alta Verapaz, alt. 4,300 pp.

Leg. H. von Tuerckheim.

679. Selaginella Guatemalensis, Baker.

Pansamalá, Depart. Alta Verapaz, alt. 4,000 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

653B. Selaginella Guatemalensis, Baker.

Coban, Depart. Alta Verapaz, alt. 4,600 pp.

M. Febr. 1886. Leg. H. von Tuerckheim.

653. Selaginella Oaxacana, Spring.

Pansamalá, Depart. Alta Verapaz, alt. 3,800 pp.

M. Jun. 1885. Leg. H. von Tuerckheim.

Undescribed plants from Guatemala. I.

JOHN DONNELL SMITH.

VOCHYSIA GUATEMALENSIS. (Series *Lutescentes*, Warm., Fl. Brasil. xiii.[2] 59.)—Smooth and shining except the puberulous leaf-buds, stipules, rachises and calyx-lobes: purplish branchlets costate-angled by a decurrent line from each stipule, interpetiolar sides concave: stipules persistent, subulate, 1½ lines long with an acute canescent tip; petioles an inch long; leaves 3–4–verticillate, opposite, or uppermost rarely alternate, oblong-lanceolate, acuminate at each end, 5–6 inches long, less than a third as broad: thyrsi composing leafy panicles, terminal and from upper axils, cylindrical, 4–7 inches long, rachis angulate and sulcate; cicinni approximate, 3–4-flowered, mostly about an inch long without the flowers, peduncles and short pedicels suberect and triquetrous: flower-buds linear, scarcely 1½ lines broad, slightly recurved, acuminate; calyx sparsely dotted with red glands, anterior lobes broadly ovate and a line long, lateral ones rounder and smaller, posterior lobe 8–10 lines long and reflexed-patent after anthesis with its slender terete deflexed spur half as long as calyx; petals oblong-obovate, the anterior one half as long as calyx and 2 lines broad, the others a little shorter and much narrower; stamen linear-spatulate, nearly twice longer than petals, the 5-lines-long and 1-line-broad anther narrowing at base into the tapering filament; staminodes tipped with a red gland; style not thickened above; stigma minute; capsule (immature) oblong, thrice longer than broad, obtusely trigonal.—Leaves nearly of *V. magnifica* Warm., but longer-acuminate, mucronulate, costal arches less distinct, reticulation more minute, and stipules conspicuous for the series; distinguished better by floral characters.—A lofty tree, not rare in its locality, with vast panicles of shining-yellow flowers, discovered by Mr. H. von Türckheim in the mountain-forests of Pansamala, Dept. Alta Vera Paz, altitude 3,800 feet, June, 1886. (Plantæ Guatemalenses Tuerckheimianæ, a John Donnell Smith editæ, 943.[1]) Remarkable as the only species of a large genus, and with a single exception the only representative of its order, that has been found outside of South America.

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[1] Sets of this series of plants are in course of preparation for distribution to Gray Herb., Harvard University; Torrey Herb., Columbia College; National Herb., Washington; Kew Herb., London; Muséum d'hist. nat. de Paris; Königl. botanisches Museum, Berlin.

HAMELIA CALYCOSA.—A shrub 9–12 feet high, glabrate: stipules filiform, 2 lines long, with a ciliated interpetiolar line: leaves ternate, lanceolate, 2–4 inches long, one fourth as broad, acuminately produced, finely attenuated into a short pubescent petiole, margins revolute, punctate and with scattered cystoliths, veins not reticulate: cymes pubescent, compound, trichotomous, umbelliform; lobes of turbinate calyx linear to oblong, 2½ lines long and equalling the tube, sinuses truncate; corolla yellow, ventricose-campanulate, 12–14 lines long, narrowed below into a cylindrical tube 3 lines long; anthers mucronately produced at base, four times longer than the complanate filament; stigma about equalling style; ~~capsule~~s glabrate, elliptical, 10-costate, 5 lines long, half as broad.—Resembling *H. ventricosa* Sw., but flowers differing by the calyx-lobes large for the genus, short broad filaments, and long stigma.—Pansamala, alt. 3,800 feet, June, 1885. (Pl. Guat. Tuerckh., a I. D. S. edit., 454.—De Türckh. Fl. Guat. Edit. Keck 454.)

berries

ARDISIA PECTINATA.—Arboreous: branchlets knotted, warty, pitted with large scars of fallen petioles: leaves crowded at end of branchlets, pergameneous, pellucid, nitidous, oblong to oblanceolate, 10–13 inches long, 4–5 inches broad, abruptly short-acuminate, cuneately narrowed to a channeled petiole half an inch long, margins finely pectinate throughout by excurrent nerves, lineolate-glandulose beneath, reticulately veined, with free veinlets, the 20–22 stronger lateral costæ joining in two series of conspicuous arches and a less distinct marginal one: panicle terminal, nearly sessile, ferruginous pubescent, broadly pyramidal, about equaling the leaves, rachises angulate and sulcate, 5-merous flowers subumbellately racemose at the end of tertiary branches, linear-bracted spreading pedicels 4 lines long: calyx-lobes ovate, 1 line long, 4-nerved, ocellate and at length glandular-thickened beneath, margins scariose; corolla-segments rose-colored, broadly ovate-lanceolate, obtuse, 2½ lines long, reflexed, 4-nerved, corrugate above, margins scariose and undulate, æstivation dextrorsely convolute and contorted; stamens two-thirds as long as corolla, oblong apiculate anthers thrice longer than filament, connective not dilated above, cells dehiscing by elliptical apical pores one-fourth their length; style straight, flat tapering, a little exceeding the stamens; ovary ovoid, rubro-punctate, 15–20-ovulate.—Related to *A. pellucida* Œrst. as described without

flowers.—Forests of Pansamala, alt. 3,800 feet, June, 1886. (Pl. Guat. Tuerck., a I. D. S. edit., 942.)

MYRIOCARPA HETEROSPICATA.—Monœcious: a shrub with pale smooth verrucose branches: leaves glabrate except the ciliate veins and axils of under surface, lanceolate-acuminate, 3–5 inches long, less than a third as broad. narrowed to a pubescent petiole 10–16 lines long, margins entire or with a few callose points, tri- or tripli-nerved with 2–3 pairs above the middle, loosely reticulate beneath, above conspicuously beset with cystoliths not radiately arranged: spikes unisexual, approximate, single in the axils, secund. forking once shortly above the peduncle, the closely-flowered staminate spike about a third as long as the loosely-flowered 6–9-inches-long pistillate one: male flowers 4-merous, perianth-segments roundish and marked with cystoliths, rudiment of ovary indistinct and peltate; female flower sessile in a 2-phyllous calycle.—Distinct by its spikes not androgynous as in the only other monœcious species, *M. bifurca* Liebm. The absence of both hairs and glands, as radiating points for cystoliths, is also special.—Forests of Pansamala, alt. 3,800 feet, March, 1886. (Pl. Guat. Tuerck., a I. D. S. edit., 892.)

NEPHRODIUM TUERCKHEIMII. — Rhizome stout, creeping, forking: stipes loosely clustered, ascending at base, 2–2½ feet long, a third of an inch thick, stramineous, pubescent, densely clothed throughout with brown triangular-lanceolate patent scales 3–4 lines long with a punctiform cellulation: frond oblong-acuminate, 3–4 feet long, half as broad, subcoriaceous, strigillose or glabrate above, paler and pilose beneath; main rachis thickly paleaceous, secondary ones with smaller scattered scales; pinnæ closely 35–40-jugate below the pinnatifid apex, linear-tapering, the lower ones not reduced, 16–20 lines broad, cut down to within a sixth of the space to the midrib; segments 60–70-jugate, linear-oblong, 8 lines long, 2 lines broad, oblique, acutish, margins revolute, veins 18–20-jugate with the lowest one terminating at the sinus; basal segments of lower pinnæ enlarged to 17 lines long and 8 lines broad, ovate-lanceolate, pinnatifid: sori submarginal, small, 9–12 to the series, persistent indusium reniform and hirsute.—Allied to *N. patens* Desv., and especially to the var. *stipulare* Bak. (*Aspidium stipulare* Willd.), but differing by the chaffy stipe and rachises, deeply cut pinnæ, numerous segments and veinlets with sori nearer

the margin.—Swamps near Coban, Alta Vera Paz, alt. 4,300 feet, September, 1885. (Pl.Guat.Tuerck.,a I. D. S.edit., 704.)

NEPHRODIUM FENDLERI, Hook., var. PAUCIPINNATUM.—Rhizome short, thick, erect; scales matted, blackish, lanceolate, 4–5 lines long, cells punctiform; rootlets with a heavy brown tomentum: stipes few in the crown, scaly at base, smooth, stramineous, 2 feet long, thick as a crow's quill: frond about as long as stipe, quite smooth throughout, minutely bullate-punctate; pinnæ 8–14, not in pairs, 8–10 inches long, 15–20 lines broad, terminal one distinct and not larger than the lateral, caudate entire apex 2 inches long, cut almost half-way to the rachis into 20–24 lobes; veinlets 10–12-jugate, only two or three from adjoining groups uniting at or below the sinus: sori on each veinlet, those above the sinus marginal; indusium pallid, not corrugate, reniform, center depressed, sinus open.—Prof. Eaton has examined this fern, and advises that it comes very close to his *Aspidium Fendleri* (Mem. Ac. Sc. viii. 210), but has fewer pinnæ. In that respect as well as others the numerous specimens are uniform.—Rock-crevices in Petet, near Coban, alt. 4,300 feet, September, 1885; copses, Pansamala, alt. 3,800 feet, July, 1886. (Pl. Guat. Tuerck., a I. D. S. edit., 767, 667.)

Notes on Umbelliferæ of E. United States. V.

JOHN M. COULTER AND J. N. ROSE.

(WITH PLATE V.)

[In addition to the collections mentioned in the April GAZETTE, we have now to add those belonging to Brown University. Prof. W. W. Bailey has thus kindly put at our disposal, not only his own large collection of Umbelliferæ, but also those of Olney and Bennett.]

THASPIUM Nutt.—Fruit ovoid to oblong, slightly flattened dorsally: carpel with 5 primary ribs, 3 or 4 or all of them strongly winged: oil-ducts solitary in the intervals, two on the commissural side: seed-section round or somewhat dorsally flattened, indented beneath the oil-ducts: stylopodium wanting; styles long (figs. 57–62).—Perennials (2 to 5 ft. high), with ternately divided leaves and broad serrate or toothed leaflets (or lower leaves simple), mostly yellow flowers, and all the fruit pedicelled.--The species of Thaspium are in great confusion. In Gray's Manual *T. aureum* Nutt. and

[From the BOTANICAL GAZETTE, Vol. xiii, No. 2.]

Undescribed plants from Guatemala. II.

JOHN DONNELL SMITH.

Chrysochlamys Guatemaltecana. (§ *Tovomitopsis*).—Arboreous, branchlets terete: leaves oblanceolate, 4-9 inches long, a third as broad, shortly acuminate, narrowed acuminately to a short petiole, chief lateral veins 10-12, younger leaves aureo-punctate and delicately reticulate with free veinlets: panicle short-peduncled, 3-4 inches long, tri-quadri-trichotomous, ultimate clusters cymose, axes complanate, bracteoles triangular and concave: flowers in specimens seen pseudo-hermaphrodite; *alabasha* round-oval, half the length of pedicels; bracts 2, ovate, 1½ lines long: sepals 4, oval, nearly equal, 3 lines long: petals 4, obovoid, a little exceeding sepals, like them striate and punctate: stamens effete, indefinite, concrete at base, equaling ovary, external ones shorter, filaments flat and linear-tapering: stigmas 5, cuneately oblong, confluent at base, exceeding diameter of 5-locular ovary.—Forests of Pansamalá, Depart. Alta Verapaz, alt. 3,800 feet, June, 1886. (Ex Plantis Guatemalensibus Tuerckheimianis, quas edidit John Donnell Smith. 989.)

Harpalyce rupicola.—A shrub: petioles 6-9 lines long, like the racemes ferruginous-pubescent; leaves 4-5 inches long; leaflets 11-15, oblong, retuse, rounded at base, 1 inch or less long, half as broad, terminal one the longest, diminishing to lowest pair one-half shorter and oval, at first puberulous above and aureo-atomiferous beneath, both surfaces soon glabrate and minutely reticulated, impunctate, margins revolute, petiolulate: racemes axillary or from leafless nodes in terminal panicles, nearly equaling leaves, 12-18 flowered, peduncle equaling petiole, pedicel 4 lines long: calyx tomentose, atomiferous, oblong-falcate, half an inch long: petals purple, auricled on one side; vexillar exceeding the others, 9 lines long, 7 lines broad, round-obovate, auricle minute; alar 2½ lines broad; carinal a little shorter, partly cohering: staminal sheath cleft to base; greater anthers linear-oblong, ¾ line long; others ovate, one-third as long: ovary linear, 1 locular, 6-7 ovulate.—Approaching *H. arborescens* Gray, the originals of which (Ervendberg 18, Coulter 556) in Harvard Univ. herb. differ by their coriaceous obscurely veined leaves atro-punctate beneath the close pubescence of under surface, short racemes of smaller flowers, biauriculate vexillum, smaller less heteromorphous anthers,

and habit.—Mountain cliffs near Santa Rosa, Depart. Baja Verapaz, alt. 5,000 feet, April, 1887. (Ex Pl. Guat. cit. 1210.)

Bauhinia Rubeleruziana. *(§ Casparia DC.)*—Arborescent, 10–15 feet high, rufous-tomentose: stipules and bracteoles linear-lanceolate, 2 lines long: petioles 9–15 lines long, inserted between a pair of minute subulate smooth spines; leaves membranaceous, glabrate above except midrib and margin, pubescent beneath with tomentose veins, ovate-oblong, cordate, 4–6 inches long, two-thirds as broad, 9-nerved; lobes triangular, acute, an inch or less long, sinus nearly rectangular: racemes extra-axillary, 15–20-flowered; rhachis at length an inch long, peduncle and pedicels a third shorter: flowers andro-monœcious, chiefly with abortive pistils, pendulous in the bud: calyx spathaceous, in the bud 9 lines long and 2 lines broad, tomentose, 5-denticulate by excurrent nerves: petals linear-lanceolate, spathulate, sessile, ciliate beneath, red, diminishing from the interior one 11 lines long and 2 lines broad to the exterior one a half smaller: stamens all shortly connate, each with a hirsute process on the inside near its adnation: the fertile 1, equaling petals, glabrous; the sterile about half as long, unequal, ciliate: pistil tomentose, exceeding petals: stipe nearly as long and style half as long as the linear 12-ovulate ovary.—Banks of Rio, Rubeleruz, Depart. Alta Verapaz, alt. 2,500 feet, April, 1886. (Ex Pl. Guat. cit. 896.)

Bauhinia Pansamalana. *(§ Casparia DC.)*—Smooth throughout: stipules and intrastipular spines minute, deciduous: petioles about 18 lines long, incrassate at each end; leaves coriaceous, entire, round-ovate to broadly elliptical, abruptly acuminate, 7-nerved, 5–7 inches long: racemes axillary and terminal, simple or dichotomous, exceeding petiole, 10–20-flowered: pedicels 8 lines long, recurved: flowers hermaphrodite: calyx in the bud linear, obtuse, entire, 9 lines long; in anthesis spathaceous, splitting into sepals at base only, reflexed: petals narrowly linear, tapering into a long claw, 10 lines long, the vexillar smaller: stamens united for a line or two in a sheath cleft to base; the fertile 3, equaling petals, anthers 2 lines long; staminodes intermediate with the fertile, half-connate, barbate within: pistil sigmoid, nearly equaling stamens; ovary pubescent in two lines, long-stipitate, beaked with a short stout style; stigma oblique, oval, a line long; legume coriaceous, flat, linear, 8–9 inches long, 9 lines

broad; seeds 9–12, oval, flat.—A tree 12–15 feet high with roseate flowers. River banks, Pansamalá and Sacolol, alt. 37–3800 feet, June, 1885. (Ex. Pl. Guat. cit. 681.)

Anneslia Quetzal. (*Calliandræ series Racemosæ* Benth. in Trans. Linn. Soc. xxx, 556.)—Glabrous, glaucescent: stipules persistent, reniform, amplexicaul, erect, cartilaginous, rubescent-pallid, flabellate-veined, 9–18 lines broad, three-fourths as long; petioles 12–18 lines long; pinnæ 1–3-jugate, 4–6 inches long; leaflets 6–8-jugate, obliquely oblong or oval, base dimidiate-cordate, dark-green above, pale beneath, 12–18 lines long, a half to two-thirds as broad, lower pairs reduced; odd leaflet sessile, linear-lanceolate, 5–7 lines long, pallid, deciduous: peduncles 3–5 from upper axils, or shorter and subverticillate in a terminal thyrsoid sessile raceme half a foot or more long; pedicels of 5-flowered umbels 2–3 lines long: calyx equaling pedicel, lobes rounded: corolla 6–7 lines long, splitting at length nearly to base into lanceolate striate petals: stamens 60–70, connate for half the length of petals, 2–2½ inches long, half an inch shorter than style, white: anthers glabrous: legume flat, narrowly oblanceolate, about 4 inches long by 8 lines broad: valves coriaceous, glabrous, margins much thickened.—The large leaflets with a small odd one resemble those of several *Macrophyllæ;* but the inflorescence is that of *C. Calothyrsus* Miq., *C. grandiflora* Benth. (both collected by Mr. V. Türckheim), and the Mexican *C. leptopetala* Fourn. The remarkable stipules seem to be approached by those of only one other species, the Brazilian *C. leptopoda* Benth.—Santa Rosa, Dept. Baja Verapaz, alt. 5,000 feet, July, 1887. (Ex. Pl. Guat. cit. 1324.)

Triolena paleolata.—Stem ligneous, ascending, nearly simple, terete, about a foot high; beset with paleacious hairs, as are the petioles, nerves and margin of leaves, articulations of pedicels, and conspicuously the calyxes: leaves membranaceous, glabrous, pale beneath, ovate-lanceolate or lanceolate, 3–5-nerved from the small cordate base, triplinerved above, erose-denticulate; the larger one of each pair 4-6 inches long, a third to a half as broad, petiole 1–2 inches long; the other about a half smaller, shortly petioled: racemes from the uppermost 1–4 axils, 8–11-flowered, rhachis in fruit 1½–2 inches long and about equaling peduncle; pedicels scarcely a line long: calyx-lobes triangular-subulate, equaling tube: petals 5 lines long, 3 lines broad, pink: appendages

of greater stamens 2–3, clavellate-tipped, one-third longer than the uniporose anthers: capsule shortly obpyramidal, acutely triquetrous, 3 lines broad; seeds obconical, muriculate, pale with a red aril.—Damp rocks in the Pansamalá forests, alt., 3,800 feet, Aug., 1886. (Ex. Pl. Guat. cit. 726.)

Myriocarpa heterostachya. (*M. heterospicata*, Bot. Gazette, xii. 133.)—Monœcious and diœcious.—More recent specimens exhibit male and female spikes borne on distinct plants, as well as in distinct axils of the same plant.—Forests of Pansamalá, alt. 4,000 feet, Jan., 1887. (Ex. Pl. Guat. cit. 366.) The opportunity is seized to correct also the hybrid name first given.

Baltimore, Md.

[From the BOTANICAL GAZETTE, Vol. xiii, No. 4.]

Undescribed plants from Guatemala. III.

JOHN DONNELL SMITH.

(WITH PLATE II.)

Mimosa sesquijugata. (Series *Sensitivæ* Benth.)—Fruticulose, suberect, glabrous, unarmed: stipules linear, rigid, striate, setose-ciliate, 1½ lines long; petioles firm, 12–18 lines long; leaflets coriaceous, glaucous, oblong, obtuse or acutish, mucronate, base dimidiate-cordate, 4-nerved, reticulate, 8–10 lines long, half as broad, margin and undersurface rigidly setose, interior leaflet of lower pair wanting; rhachises bristly, 1–2 lines long: flowers tetramerous; peduncles retrorsely strigillose, more than half as long as petioles; bracts subulate, ciliate, less than half as long as corolla: calyx almost obsolete, hyaline, ciliate-toothed: corolla glabrous, purple, 1 line long: stamens 3–4 lines long: legume not seen.—Near the Brazilian *M. glaucescens* Benth. *ex char.*—In rock-fissures near Santa Rosa, Dept. Baja Verapaz, alt. 5,000 feet, July, 1887. (Ex Plantis Guatemalensibus Tuerckheimianis, quas edidit John Donnell Smith, 1327.)

Melampodium brachyglossum.—Annual, herbaceous, 2–3 feet high: stem pilose, glandular above, dichotomous, branches quadrangular: leaves scabrid on both surfaces, subtriplinerved, coarsely toothed, 1½–2½ inches long, triangular, acuminate, abruptly contracted to a winged petiole dilated at base; varying to oblong and lanceolate, cuneately contracted below the middle, sessile: peduncles filiform, 1–2 inches long: heads 2 lines broad and high; involucral scales 3, shortly connate, round-acuminate, pilose; rays 6–7, quadrate-orbicular, ¾ line in diameter, 2–3-lobed, pilose beneath, yellow; fructiferous bracts rugose, callose-tuberculate; achenia incurved-pyriform, concentrically striate, 1 line long. —Coban, Dept. Alta Verapaz, alt. 4,300 feet, July, 1885, May, 1886. (Ex Pl. cit. 114, 761.)

Ardisia Tuerckheimii.—A small tree: glabrous throughout: leaves coriaceous, glaucous, lineolate and punctate beneath, entire, oblong, 3–4 inches long, a third as broad, apex caudately produced and obtuse, narrowed to a short petiole: corymbs terminal, shortly peduncled, half as long as leaves; pedicels 3–6, subumbellate at apex of flexuose rhachis and of its 2–3 primary branches, 7–9 lines long: sepals 5, ovate-oblong, a third as long as petals, persistent in fruit: petals 5, elongate-oblong, 3½ lines long, obtuse, white, like the sepals

rubropunctate in lines and dots: stamens 5, 2½ lines long; anthers exceeding the flat tapering filaments, linear-oblong, quadrangular, base cordate, apex obtuse and mucronulate, biporose: style nearly equaling petals; ovules 12–16: fruit red, glandular, 3 lines in diameter, crowned with persistent base of style.—Distinguished by secondary branches of inflorescence two to three times exceeding primary ones.—Mountain forests of Pansamalá, Dept. Alta Verapaz, alt. 3,800 feet, Aug., 1886. (Ex Pl. cit. 1,035.)

Cobæa triflora.—Leaflets 3-jugate, uniform, oblong-lanceolate, tapering from the middle to an acute mucronulate apex, somewhat narrowed to a cordate-truncate base, 2½–3 inches long, marginate, petiolules 4–5 lines long: peduncles 2–3 inches long, terminal pedicel 6–8 inches long, the two lateral of later development from alternate foliaceous bracts: calyx-segments almost free, patent, lanceolate-acuminate, margins revolute, 1 inch long, like leaflets naked, yellowish-green dotted with red, pale within: corolla broadly subcampanulate, 1½ inches long, pubescent, pale-yellow, reddish below; lobes short, rounded, erect: stamens and style shortly exserted.—Leaves as figured for *C. gracilis* Hemsl. in Œrst. L'Amér. Centr. t. XVI: flowers nearest to the Ecuador *C. campanulatus* Hemsl.—Banks of Rio Cajabon, near Coban, alt. 4,300 feet, Dec., 1886. (Ex Pl. cit. 204.)

Beloperone Pansamalana. (§ *Beloperonides.*)—Fruticulose, epiphytal, prostrate: branches ascending, dichotomous, tetragonal, pubescent in two lines: leaves membranaceous, opaque, beset with cystoliths, glabrous, dark-green above, glaucous beneath, rhomboidal to elliptical, each end acuminate, 12–16 lines long, 6–7 broad, petioles 1–3 lines long: flowers 2–4, at length pedicellate in a subsessile fascicle: spatulate bracts 3 lines long, linear-spatulate bracteoles a third longer, both truncate at apex and glandular-hairy: calyx-segments linear-setaceous, 5 lines long, barbellate: corolla 18–20 lines long, scarlet; lips nearly equaling tube and each other, hairy without, glabrate within, the posterior one bidentulate, the anterior 4 lines broad with lobes 2 lines long: stamens nearly equaling lips; lower cell remote, scarcely calcarate: style shortly exsert.—Pansamalá forest, alt. 3,800 feet, Oct., 1885, Sept., 1886. (Ex. Pl. cit. 732.)

Thyrsacanthus geminatus.—Suffruticose, ferruginous-pubescent: stem tetragonal: leaves pergameneous, nitidous ex-

cept veins, oblong-obovate, cuspidate-acuminate, long-attenuate to a small obtuse base, shortly petioled, 10–14 inches long: thyrsi in a brachiate long-penduncled foliaceous-bracted panicle, virgate, 6–12 inches long: cymes subsessile, at length geminate on a bipartite peduncle 3 lines long, 3–10-flowered, exceeding verticillastrate internodes, small bracts and bracteoles linear-lanceolate, pedicels 4–6 lines long: calyx-segments linear-lanceolate, 1½ lines long: corolla straight, 13 lines long, purple, tube equaling inflated throat; lobes nearly equal, oval, ciliate, posterior one erect and 2-lobuled, others reflexed and 4 lines long: stamens nearly equaling corolla-limb, cells equal; staminodes minute, uncinate.—The allied *T. callistachyus* Nees in DC. has leaves less minutely and prominently reticulated, cymes subsessile, corolla-limb smaller with (*ex* Nees) superior lobe narrow and entire, stamens very short and included.—Pansamalá forest, alt. 3,800 feet, Oct., 1885, May, 1887 (Ex. Pl. cit. 740.)

Scutellaria lutea. (§ *Stachymacris* Benth.)—Fruticose; stems terete, fusco-velutinous; branches and inflorescence canopilose, glandular: leaves like flowers sericeous and atomiferous, oval to ovate-oblong, 8–15 lines long, crenate, petioles 2–3 lines long: racemes loose of 5–6 pairs of declinate flowers; bracts 2–3 lines long, lower ones foliaceous and petioled: calyx 2 lines long, exceeding pedicels; crest in fruit enlarged to 4 lines long, obovate, appressed, yellow: corolla elongate, 1 inch long, sulphur-yellow, tube 3 lines long, throat gradually dilating, lips equal and 2 lines long; posterior lobe of upper lip small, emarginate, its lateral lobes equaling the erect crenulate plicate-edged lower lip: anthers naked; filaments margined: disk obovate, nearly equaling ovary, contracted to oblique short gynophore: nutlets globose, granulate.—Forest near Santa Rosa, alt 5,000 feet, July, 1887. (Ex Pl. cit. 1,309.)

Dorstenia Choconiana Watson in Proc. Am. Acad. XXII, 477, var. (v. form.) **integrifolia.**—Rootstock tuberculate: stems simple or furcate: leaves entire, margins crispate and undulate: peduncles 1–2 inches long: receptacle acetabuliform, 9–12 lines in diameter, turbinate, pallid externally; border of disk green within, 2½ lines broad; alveolate areoles quadrate, white, green-bordered: pistillate florets 6–7, intermixed with numerous staminate ones: nucules stipitate, obovoid, compressed above and below in opposite axes, a line or more long

and broad; endocarp shining-white, callose, delicately reticulated.—Pansamalá forest, alt. 3,800 feet, Sept., 1886, April, 1887. (Ex Pl. cit. 751.)—Freiherr von Türckheim's numerous specimens, representing all stages of growth, show no tendency toward lobing of leaves. The originals of Dr. Watson's description, sparingly collected by him in the *tierra caliente*, are somewhat less robust plants, and the leaves have a more distinctly continuous intermarginal vein; the flowers were not described, and in the specimens seen are insufficient for examination.

Asplenium Vera-pax. (§ *Diplazium*.)—Stipes tufted from a short rhizome with a few black scales toward base, 18 inches long: fronds subcoriaceous, glabrous, pale beneath, punctate, ovate-lanceolate, 12 inches long, lower half pinnate, the upper cleft or lobed and tapering to an elongated serrate apex: rhachis sulcate on face, angled by decurrent pinnæ, bearing in their axils a gemmule covered with minute scales: pinnæ 7–8 to a side, oblong to oblong-lanceolate, acuminate, distantly serrulate, base truncate on upper side and reduced on lower; basal pair stalked, produced, $4\frac{1}{4}$ inches long, 1 inch broad; others a third to a half smaller, adnate, confluent above: veins single, erecto-patent, mostly 1–3-branched, the lowest anterior veinlet soriferous: sori 15–23 to a side, 6–8 lines long, falling short of both midrib and margin, diplazioid chiefly below middle of pinnæ. (Plate 11.)—Pansamalá forest, Dept. Alta Verapaz, alt. 4,000 feet, Sept., 1886. (Ex Pl. cit. 850.)

Baltimore, Md.

[From the BOTANICAL GAZETTE, Vol. xiii, No. 7.]

Undescribed plants from Guatemala. IV.

JOHN DONNELL SMITH.

(WITH PLATE XI.)

Gonzalea thyrsoidea.—Pilose: leaves except veins glabrate, oblong (8-9 inches), each end acuminate, shortly petioled: thyrsus virgate, a foot long; flowers 3-7, pedicellate, in scattered nearly sessile cymose clusters: calyx-tube produced; teeth smooth, colored, small, triangular, unequal: corolla-tube cylindrical, 7 lines long; lobes nearly half as long, of a darker red, farinaceous and arachnoid within, their contact in æstivation alternately imbricate and induplicate-valvate: anthers barely included: style scarcely attaining to their base; divisions of stigma 4, linear: disk radiately 8-lobuled: ovary 4-locular.—Mountains of Pansamalá, Dept. Alta Verapaz, alt. 3,800 feet, May, 1887. (Ex Plantis Guatemalensibus Tuerckheimianis, quas edidit John Donnell Smith, 1249.)

Mikania pyramidata.—High-climbing shrub with ferruginous-hirsute branches, petioles and inflorescence: leaves pubescent, more scabrid above, ovate-lanceolate, slenderly acuminate, 4-8 inches long, base truncate or rounded, margin with an angulate tooth and distant callose points, nerves from base in 2-3 remote pairs: panicles pyramidal, compound, densely flowered, 6-12 inches long; branches brachiate, leafy-bracted below, the upper alternate; heads loosely corymbose, pedicels equaling involucre; its bracts glabrate, linear-oblong (2 lines), apex obtusish and pubescent, subtending bract shorter and lanceolate or none: corolla equaling involucre; limb campanulate, exceeding slender tube, cleft to middle in ovate-lanceolate lobes: akenes nearly smooth, a little exceeded by involucre and sordid-white pappus.—Forest near Coban, Dept. Alta Verapaz, alt. 4,300 feet. January, 1887. (Ex Pl. cit. 1106.)

Zexmenia Guatemalensis.—Fruticose, scabrid, cano-pilose: leaves muricate-scabrous above, hairy beneath, tripli-nerved, mucronately denticulate, ovate-lanceolate, 4-6 inches long, spatulately narrowed to dilated connate base: peduncles cano-lanate, 3-5, subumbellate at apex of branches, exceeded by subtending leaves: heads hemispherical, 5 lines high; exterior bracts of biserial involucre 5, herbaceous, a third longer than the 8 inferior: rays 8, bidentate, 6 lines long:

disk-corollas a little exceeding involucre, equaling produced rigid tips of lacerate chaff, limb exceeding tube, lobes canohirsute: ray-akenes obovate; pappus-teeth confluent with wings, incurved-lanceolate, shortly-awned, connate, the lateral equaling corolla-tube: disk-akenes oblong-turbinate, subtriquetrous, costate, puncteolate; pappus a squamellate cup, exaristate or occasionally 1-awned.—Coban, alt. 4,300 feet, February, 1886. (Ex Pl. cit. 853.)

Eucelia pleistocephala.—Branches angulate, purplish, pubescent toward inflorescence: leaves alternate, scabrid above, pubescent beneath, penninerved, callose-denticulate, oblong-lanceolate, 5-6 inches long, acuminately narrowing to a channeled petiole an inch long: corymbs compound, dense, a little surpassing leaves; heads long-pedicellate, 6 lines high; involucre half as long, campanulate, purplish-green, pubescent, 2-3-serial, inner bracts oblong, outer smaller and thick: rays 5-6, oval, 2 lines long, 3-denticulate, yellow, tube equaling involucre; disk-corollas equaling rays, exceeding concave pubescent chaff, lobes darker yellow: anthers black, barely exserted: akenes spatulate, nerved, nearly smooth, margins ciliolate; awns from inner side of conspicuous teeth, upwardly barbellate, equaling corolla: abortive akenes occasionally triquetrous, unequally 2-3-aristate.—The anomalous inflorescence recalls several *Verbesinæ;* but technically distinct by neutral rays.—Rocks near Coban, alt. 4,300 feet, February, 1887. (Ex Pl. cit. 1121.)

Gonolobus velutinus Schlecht., var. **calycinus.** — Indument pilose, uniform throughout of young leaves and follicles dense: leaves caudate-acuminate, hairs of upper surface from muriculate points: calyx-lobes nearly equaling corolla, roundish with caudiculate barbate apex, otherwise nearly smooth.—In 2458 *Bourgeau*, cited by Hemsl., *Biol. Centr. Am.*, leaves are as in description velutinous, calyx-lobes smaller and not produced.—Pansamalá forest, alt. 4,000 feet, April, 1887. (Ex Pl. cit. 1124.)

Lamouroxia integerrima (§ *Hemispadon* Benth.).—Leaves entire, lanceolate, 16-20 lines long, a fourth as broad: flowers somewhat crowded toward summit of branches: calyx faintly 8-nerved; tube 2 lines long, equaling peduncle, exceeding triangular erect bilabiately unequal teeth: corolla ventricose, 15-17 lines long, 4-5 lines wide at throat, cleft less than half way; posterior lip retuse, rectangular: anantherous stamens half as long as the fertile.—The nearly related *L. lanceolata* Benth., also collected by Mr. von Türck-

heim, similar in habit, differs by slender serrate leaves, more scattered longer-peduncled flowers, 12-costate calyx with long-spreading nearly equal marginate lobes, straight narrow more deeply cleft corolla, its posterior lip entire with produced angles, longer sterile stamens.—Pansamalá, alt. 4,000 feet, January, 1887. (Ex Pl. cit. 1112.)

Pitcairnia Tuerckheimii (§ *Eupitcairnia* Baker).—Acaulescent: basal bracts lanceolate, attenuately prolonged, retrorsely prickly, 12-18 lines long, passing into similar unarmed basal leaves; those of peduncle cano-floccose beneath, linear-attenuate, erect, the lower 6-8 inches long by 4-5 lines broad: peduncle a foot or more long, like triangular rhachis araneose; raceme 8-14-flowered, internodes of about an inch; bracts ovate-lanceolate to ovate, 7-4 lines long, equaling smooth erecto-patent pedicels: sepals like bracts uncolored, glabrous, linear-tapering, acute, 12-14 lines long, scarcely 1½ lines broad: petals nearly 3 inches long, crimson, paler below, basal scales absent: anthers protruding: style exceeding petals.—Rock-crevices, Santa Rosa, Dept. Baja Verapaz, alt. 5,000 feet, July, 1887. (Ex Pl. cit. 1298.)

Nephrodium Tuerckheimii. Bot. Gazette, xii, 133.—Explanation of Plate XI: Fig. 1. Frond reduced. Fig. 2. Portion of base of frond: nat. size. Fig. 3. Rootstock: nat. size. Fig. 4. Base of a lower pinna: nat. size. Fig. 5. Two segments of a pinna: enlarged. Fig. 6. Portion of a segment: more enlarged. Fig. 7. Indusium: magnified. Fig. 8. Scale from stipe: magnified.

An apparently undescribed species from Costa Rica is here added. It is numbered 176 of a small collection made by Señ. Juan J. Cooper, near Cartago, alt. 4,500 feet, December, 1887.

Zanthoxylum Costaricense.—Branches flexuose, armed with compressed recurved spines, glabrous, blotched with black exudations: petioles canaliculate, 6-9 lines long; leaflets 3, terminal exceeding others, oblong (21-26 lines), apex acuminate and retuse, base acute, crenulate, punctate throughout: panicles axillary and terminal, scaly-bracteoled, verrucose; in fruit ramified, an inch or more long, from leafless nodes: flowers not seen: cocules 1-2, globose, glandular-tuberculate, dehiscing to base, stipe and gynophore each about half a line long: seed globose.—A shrub 10-15 feet high, known as "Limoncillo."

Baltimore, Md.

[From the BOTANICAL GAZETTE, Vol. xfii, No. 11.]

Undescribed plants from Guatemala. V.

JOHN DONNELL SMITH.

(WITH PLATES XXIII and XXIV.)

VOCHYSIA GUATEMALENSIS. Bot. Gazette, XII, 131. Explanation of Plate XXIII: Fig. 1. Flowering branch—natural size. Fig. 2. Immature capsule. Fig. 3. Flower. Fig. 4. Same with pistil exposed. Fig. 5. Staminode. Fig. 6. Stamen. Fig. 7. Anterior petal. Fig. 8. One of the lateral petals. Fig. 9. Vertical section of ovary. Fig. 10. Ovule. Fig. 11. Diagram of flower. (Figs. 3—11 are variously enlarged.)

Hanburia parviflora.—Leaves roundish, base emarginate, 5–6 inches long, 5-times exceeding petiole, triplinerved, tripartite nearly to base, divisions oblong-lanceolate: shortly peduncled racemes 12–15-flowered, flexuose, nodding, twice exceeding petioles, spreading pedicels equalling flowers: calyx urceolate-campanulate, 6 lines long, nearly half as broad, teeth minute: corolla-segments ovate, half as long as calyx, reflexed: filament-column 4 lines long, antheriferous globose-turbinate head 2 lines broad, cells in 10–12 pairs: pistillate flowers not seen.—The other species of this genus, *H. Mexicana* Seem., has long-petioled uniformly undivided leaves exceeded by peduncles of rigid racemes, sparse twice-larger flowers, a shortly campanulate calyx, anther-cells in more numerous lines.—Pansamalà, alt. 3,800 feet, April, 1888. (Ex Pl. Guat. Tuerckh., qu. edid. J. D. S., 1366.)

Calea trichotoma.—Branches divaricate, fusco-tomentose: leaves petiolate, 12–18 lines long, subcordate, triplinerved, remotely serrulate, scabrid above, cano-tomentose beneath: pedicels of simple or compound terminal corymbs 3, half an

inch or less long, monocephalous: heads homogamous, about 20-flowered, subglobose, 5 lines high; exterior bracts of involucre foliaceous, scabrid, ovate, minute; interior ones smooth, oblong, obtuse, exceeded by disk; bracts of conic receptacle conduplicate, laciniate, rostrate: palets of pappus 20–23, linear-tapering, nearly naked, subequalling corolla; achenia pubescent.—Nearest, especially in foliage, to the Columbian *C. glomerata* Klatt., Bot. Jahrb. VIII, 45. Rocky mountain sides near Coban, alt. 4,300 feet, Aug., 1887. (Ex Pl. cit. 1353.)

PITCAIRNIA TUERCKHEIMII. Bot. Gazette, XIII, 190. Explanation of Plate XXIV: Fig. 1. Plant, nat. size. Fig. 2. Vertical section of flowers nat. size.

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Undescribed plants from Guatemala. VI.

JOHN DONNELL SMITH.

(WITH PLATES VI and VII.)

GUATTERIA GRANDIFLORA.—Arboreous: leaves shortly petioled, coriaceous, glabrous except pilose midrib beneath, obovate-oblong (6–8 inches), a third as broad, cuspidate: peduncle terminal, 1½–2 inches long, articulated midway, lanceolate bract an inch long: petals thrice exceeding ovate sepals, oblong (14–16 lines), obtuse, nearly equal, fleshy, fuscous-velvety, the 3 interior glutinose-papillate toward base within: berries few (10–12), glabrous, ellipsoid, each end obtuse, 10 lines long, half as broad, 4-times exceeding incrassate stipe; seed corrugate.—Pansamalá forest, Depart. Alta Verapaz, alt. 3,800 feet, May, 1887 (Ex Pl. Guat. Tuerckh., qu. edid. J. D. S., 1,235).—The few other species with shortly stipitate carpels, of which *G. Quinduensis* Tr. et Planch., seems the most nearly related, differ respectively, as described, by axillary inflorescence, or smaller flowers, or less elongate fruit.

CLIDEMIA CYMIFERA (§ *Sagræa* Cogn.).—Branchlets, petioles, leaf-veins and calyxes stellate-furfuraceous, rubescent: leaves a little or twice exceeding petioles, ovate-acuminate, 3–5 inches long, somewhat unequal in the pairs, 5–7-nerved from cordate base, glabrate above, margins scabro-ciliate: cymes from axillary bracteolate nodes pseudo-fascicled, at length 1–3 and pedunculate, trichotomous, 1½–2 inches long; axes divaricate, filiform, exceeding flowers, glabrous, red: calyx urceolate, teeth shortly subulate-appendaged: petals obovate-oblong (4–5 lines), twice exceeding calyx, roseate: anthers incurved, shorter than filaments, inappendiculate connective not produced: ovary one-third free, conical apex glaucous: berry oval.—Rocks of a waterfall, Pansamalá, alt. 3,800 feet, June, 1885 (Ex Pl. cit. 709).

BLAKEA GUATEMALENSIS (§ *Eublakea* Triand).—Fur-

furaceous, anisophyllous: leaves glabrate, chartaceous, 5-nerved; the larger oval, caudate-acuminate, minutely cordate, 5 or 6 inches long, half as broad; the smaller ovate-lanceolate, 10–15 lines long: peduncles geminate or solitary, 1½–2 inches long, sub-equalling internodes: bracts 1-nerved; the exterior ovate-lanceolate, shorter than flowers, twice exceeding the obovate interior: calyx-limb narrow, sinuate: petals obovate-spatulate, nearly an inch long, roseate: anthers laterally connate, oblong, connective slender for the genus, its acutely conical spur a line long: style arcuate, elongate (8 lines), stigma capitellate: berry ribbed, 6-celled.—Pansamalá, alt. 3800 feet, Sept., 1886 (Ex Pl. cit. 778).—*B. gracilis* Hemsl., with nearly similar involucre, flower and fruit, is isophyllous, leaves acute at base, solitary peduncles several times exceeding internodes, bracts 3-nerved, anthers free and inappendiculate.

Explanation of Plate VI: Fig. 1. Flowering branch, nat. size. Fig. 2. Vertical section of flower. Fig. 3. Flower deprived of petals and stamens, enlarged. Fig. 4. Stamen, enlarged. Fig. 5. Diagram of flower.

CLIBADIUM ARBOREUM.—Tomentose: leaves scabrid above, hairy beneath, triplinerved, appressed-serrulate, ovate-acuminate, 5–7 inches long, base narrowed to nearly half as long as petiole: corymb large, flat, dense: heads subsessile, bracts ovate-oblong: involucre 3 lines high; bracts 9–10, pubescent, ciliate, firm, strongly nerved, obtuse; disk epaleaceous: fertile flowers 5, uniseriate; achenia large (1½ lines long), thick, winged below apex, black, shining: sterile flowers 10–11; corolla exsert, 1½ lines long, lobes puberulous; abortive achenia equaling the perfect, like them naked except glandular-pubescent apex.—Pansamalá, alt. 3,800 feet, June, 1886, (Ex Pl. cit. 929).—Remarkable by arboreous habit, as stated by Mr. von Türckheim. Other Central-American species, all suffruticose, the first nearly allied, may be distinguished as follows:

C. Surinamense L., var. *asperum* Baker. Petioles short, leaves rounded at base: heads smaller; involucral bracts 6–8, acute; palets 2–3, linear: achenia small, short obovate, dull-pale, upper half villose: corolla-lobes of sterile flowers conspicuously villose; abortive achenia hidden by shaggy hairs.

C. leiocarpum Steetz. Petioles very short, leaves narrowly ovate-lanceolate: heads small; involucral bracts glabrous, long-ciliate, bi-form, acutish: achenia broad, thick, black, apex naked and tuberculate.

C. acuminatum Benth. Petioles long: fertile flowers bi-seriate; sterile fewer (3–4), subsessile by short abortive achenia.

C. erosum DC. Petioles long, leaves unequally incised-serrate: heads distinctly pedicellate: fertile flowers bi-seriate, sterile 10–12.

NEUROLÆNA LOBATA R. Br., var. INDIVISA.—Glabrate: leaves membranaceous, scabrid above, broadly lanceolate, tapering finely to each end, lobeless: heads large.—Pansamalá forest, alt. 3,800 feet, April, 1887 (Ex Pl. cit. 1,223).—Approaching *N. macrocephala* Schz. Bip. in foliage and size of heads, but involucres remain distinct.

ARDISIA MICRANTHA.—Arboreous: leaves from short internodes, glabrate, coriaceous, obovate-elliptical, 4–6 inches long, acuminate, narrowed to short margined petiole: panicle terminal, subsessile, exceeded by leaf; branches complanate, margined, alternate, sub-simple, closely racemose-flowered toward apex; pedicels exceeding ovate alabastra, bractlets small: calyx-divisions ovate, ocellate, glandular-ciliate: corolla twice longer ($2\frac{1}{2}$ lines), lepidote without and toward base within, sub-partite, segments oblong-ovate: stamens exceeding corolla, at length long-exsert, cordate anthers $\frac{1}{4}$ line long: style shorter than corolla, ovary rubro-punctate.—Coban, Depart. Alta Verapaz, alt. 4,600 feet, March, 1888 (Ex Pl. cit. 1,365).—*A. compressa* HBK., and *A. revoluta* HBK., with somewhat similar foliage and panicles, are distinct by anthers equaling or exceeding filaments; *A. bracteosa* A. DC., with nearly similar stamens, has sessile flowers exceeded by their bracts, tubular calyx and corolla acutely cleft.

TOURNEFORTIA BICOLOR SWZ., var. CALYCOSA.—Calyx-segments glabrate, linear, two-thirds as long as corolla.—Pansamalá, alt. 3,800 feet, July, 1886 (Ex Pl. cit. 980).

IPOMŒA DISCOIDESPERMA (§ *Strophipomœa* Chois.)—Leaves twice exceeding petiole, entire, ovate, caudate-acuminate, base truncate, $3\frac{1}{2}$–$4\frac{1}{2}$ inches long: peduncle exceeding petiole; pedicels 2–3, shorter than calyx, tetragonal-incrassate above, bracts minute: sepals elliptical, an inch long, smaller within: corolla yellow, infundibular, 2 inches long, tube short: stamens equal, one-fourth as long as corolla; filaments dilated at base, more than twice exceeding oblong anthers: style shorter, stigma 2-globose: disk large, pulvinate: ovary 2-locular, 4-ovulate, ovules arachnoid: capsule coriaceous, globose, over an inch in diameter, 1-locular,

4-valved: seed 1, oblate. an inch broad, half as high, black, velvety.—Pansamalá, alt. 3,800 feet, June, 1885 (Ex Pl. cit. 744). Collected also by Dr. Sereno Watson (412 Fl. Guatemala. Yzabal, Apr. 1885). The tardily dehiscing capsule exhibits scars of three obsolete ovules; vestiges of the dissepiment appear in the form of a narrow ring encircling the seed, free from both it and the septa, and attached only at the conspicuous hilum.

The eccentric seeds justify the conjecture that this is the plant known only by its capsules in Kew herb., which is referred to as follows by Seeman (Bot. Voy. Herald), and which has not been cited by later authors: "683. Ipomœa sp. Nomen vernacul. *Boton de terciopelo*. Veraguas. The capsule of this species is quite glabrous, but the seeds are densely covered with short, stiff, black hairs, giving them the appearance of black velvet buttons."

SOLANUM SIDEROXYLOIDES SCHLECHT., VAR. OCELLATUM.—Leaves elliptical, acuminate, base rounded, nearly smooth above, pubescent beneath, veins tomentose: calyx-teeth replaced by conspicuous black globose intramarginal glands.—Pamsamalá, alt. 3,800 feet, May, 1887 (Ex. Pl. cit. 1,155). Schiede's original of Schlechtendal's description has been compared in the Berlin Herb. by Prof. Urban with the above, and fragments communicated by him. It differs only by more manifestly ovate and acuminate leaves floccose beneath, and minutely-toothed calyx. To the typical form seem referable 827 Botteri, 2,837 Bourgeau, 923 Türckheim; also the following unnamed specimens at Kew (not cited in *Biologia Centrali-Americana*), which have been compared by Dr. N. L. Britton: 1,157, 1,172 Galeotti; 233 Linden: 855, 856, 857, 897 Botteri.

SOLANUM OLIVÆFORME.—Herbaceous, glabrate, repent, 2–3 feet long: petioles margined, amplexicaul, 1–2 inches long; leaves minutely lepidote above, pale-glaucous beneath, trisect, cordate; leaflets obtuse at each end, contracted to margined petiolules; the terminal rhomboid 12–18 lines long; the lateral half as large, sub-opposite, oval, inæquilateral, base truncate on upper side and produced on lower: peduncles extra-axillary, sub-equalling petioles, exceeding 3–5-flowered scorpioid cyme: calyx-teeth triangular: corolla-segments linear-oblong (3 lines): anthers oblong, dehiscence longitudinal: berry ellipsoid, over an inch

long, nearly half as broad.—Mountain-precipice in Pansamalá, alt. 3,800 feet, May, 1887 (Ex. Pl. cit. 1,226).—The Bolivian *S. tripartitum* DC., which seems to be the most nearly related species, has, among other differences, pisiform fruit.

TETRANEMA EVOLUTA.—Leaves membranaceous, reticulate veins beneath and erose margins pubescent: peduncles ex-alate, shorter than leaves, sub-equalling paniculiform scorpioid cymes, elongate axes 2–4-nate: calyx-segments attenuate, 3–4 lines long: corolla nearly an inch long, white with purple spots: capsule ellipsoid.—On rocks, Pansamalá, alt. 3,800 feet, May, 1887 (Ex. Pl. cit., 1,218).—The generic character drawn strictly from the sub-capitate umbelliform inflorescence of the monotype, *T. Mexicana* Benth., needs enlargement to include this second species. The former differs also by glabrous fleshy crenulate leaves exceeded by margined peduncles, shorter calyx, smaller corolla, globose-ovoid capsule.

LOUTERIDIUM DONNELL-SMITHII, Watson, Proc. Am. Ac. xxiii, 284.—The author of this recent genus makes the following correction in one of its characters: "The upper sepals were described as distinct, and the three lower as united. The reverse is the fact. The third broad and apparently simple sepal is posterior, while the two lower, which remain distinct, are lateral, one upon each side of the sac of the corolla." In examining Dr. Watson's own undetermined collections in Guatemala this plant has been found to occur as "No. 292, Banks of Chocon river, Depart. Yzabal, March 1885."

Explanation of Plate VII: Fig. 1. Cyme and leaf. Fig. 2. Flower with calyx removed and corolla laid open. Fig. 3. Vertical section of ovary. Fig. 4. Ovule. Fig. 5. Capsule divided transversely. Fig. 6. Dehiscent capsule. Fig. 7. One valve showing placenta and retinacula. Fig. 8. Seed divided transversely. Fig. 9. Embryo. Fig. 10. Diagram of flower. (Figs. 1, 2, 5, 6 and 7 are natural size; the others are variously magnified.)

SCUTELLARIA ORICHALCEA.—Suffruticose, a foot high, pubescent: leaves minutely scabrid above, pulveraceous beneath, oblong-lanceolate, obtuse, coarsely toothed, 16–21 lines long, 2–3 times exceeding petiole: raceme terminal,

secund, equalling leaves; flowers 12–15, pubescent, alternate and opposite, twice exceeding foliaceous bracts: calyx 2 lines long, equalling pedicel: corolla yellow, 10 lines long, tubular nearly to lips and half a line wide; posterior lip 1 line long, united with equal lateral lobes, nearly twice exceeding patent anterior lip: filaments scarcely margined; anthers ciliate.—Rock-crevices, Chajrax, Depart. Alta Verapaz, alt. 2,000 feet, Dec., 1887 (Ex Pl. cit. 406).—Affinity is with the recently described *S. lutea*, Botan. Gaz. xiii. 76; but conspicuously different by filiform corolla.

DAPHNOPSIS RADIATA (§ *Nordmannia* Benth. et Hook.).—Fruticose, younger parts and inflorescence sericeous-pubescent: leaves coriaceous, smooth and shining above, paler and veiny beneath, oblanceolate, 8 or 9 inches long, 2 inches broad, each end acutely attenuate, sessile: peduncles extra-axillary, 1½–2 inches long, terminated by a globose 35–38-flowered umbel 16 lines in diameter; pedicels filiform, twice exceeding flowers: pistillate perianth urceolate-fusiform, roundish unequal lobes ½ line long: staminodes most minute: style equalling sub-stipitate ovary, large globose stigma included by connivent perianth-lobes: staminate flowers not seen.—Mountain-forest, Coban, alt. 4,600 feet, Feb., 1888 (Ex Pl. cit. 1,163).—Well marked by large leaves, numerous elongated pedicels, small perianth-lobes, long style.

HYPOXIS RACEMOSA (§ *Euhypoxis* Baker).—Tuber oblong, ¾ inch thick, neck elongate: leaves plicate, carinate, 7–9-veined, a foot or more long, 6 lines broad: scapes 5–6, suberect, a third shorter than leaves: racemes densely villose, 2–3 inches long, 7–8-flowered; pedicels equalling bracts and internodes, alternate above: exterior perianth-segments green on face with colored margin, linear-lanceolate, 5 lines long, 1 line broad; the interior a little smaller, more than twice exceeding stamens: style with stigma equalling filament: ovary trigonal, equalling limb.—Coban, alt. 4,300 feet, May, 1886 (Ex Pl. cit. 33).—A more robust plant than any forms of *H. decumbens* L., and distinct from the var. *major* Seub., by rhizome, distinctly racemose inflorescence, long-pedicellate flowers, elongate perianth. Collected also in Mexico by Botteri (80, 455, 463).

Baltimore, Md.

C. E. Faxon del.

B. Meisel, Lith. Boston.

VOCHYSIA GUATEMALENSIS, J. Donnell Smith.

C. E. Faxon, del.

BLAKEA GUATEMALENSIS n. sp.

B. Meisel, Lith. Boston.

C.E. Faxon, del.

LOUTERIDIUM DONNELL-SMITHII, Watson.

B. Meisel, Lith. Boston.

C. E. Faxon, del.

B. Meisel, Lith. Boston.

PITCAIRNIA TUERCKHEIMII, J. Donnell Smith.

C.E Faxon, del.

ASPLENIUM VERA-PAX, n. sp.

B. Meisel, Lith. Boston.

5.

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7.

8.

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2.

1.

3.

C. E. Faxon del.

B. Meisel, Lith. Boston.

NEPHRODIUM TUERCKHEIMII, J. Donnell Smith.